Utah Department of Health

Utah Public Health Outcome Measures Report

January 2003

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Executive Director

Utah Department of Health

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Executive Summary

The Utah Department of Health (UDOH) exists to protect the public's health through preventing illness, injury and premature death, assuring access to necessary health care and promoting healthy lifestyles. Reporting on Utah's priority health needs and our progress in addressing them provides a roadmap for individuals, communities, and professionals so they may take specific steps to ensure that health goals are being met.

Overall, Utah is a state with a young population that is less burdened by diseases that generally affect older persons. Utahns are least likely to smoke cigarettes among all states, and have lower rates of diseases such as lung cancer and heart disease as a result. However, we are becoming increasingly overweight and obese, and our death rate from diabetes has increased substantially over the past two decades.

It appears as though the recent economic woes in Utah and the U.S. have begun to impact some Utah measures of health status and access to health care.

- In 2000, compared with 1998-1999, more Utah adults (10.2%) reported that cost was a barrier to getting medical care when it was needed.
- In 2001, 8.7% of Utahns lacked health insurance coverage, a slight increase from 1996, the last time Utah Health Status Survey data were available.
- Utah's 2001 median household income has leveled off at $47,342, but remains above the U.S. figure ($42,228). However due to our larger families, per capita income was lower in Utah ($17,813, compared with $21,776 in the U.S.).
- In 2000 and 2001, the percentage of Utahns in poverty increased. It is now back to the 1993 level, and is no longer significantly lower than that found in the U.S.
- Utah's 2001 homicide rate (3.18 per 100,000 persons) was an increase from rates found in the previous five years. The rate had reached similar levels prior to 1996, but had declined in the intervening years. The homicide rate in the U.S. is almost twice that found in Utah.

Other significant trends and findings include the following.

- The proportion of mothers receiving prenatal care during the first trimester of pregnancy has declined significantly from the early 1990s although eligibility for Medicaid prenatal services has remained unchanged. We are now below the U.S. average.
- A higher proportion of newborns (virtually all) are being screened for hearing, metabolic, and genetic disorders as required by law, and are receiving follow-up care when appropriate.
- Each year, more Utah adults are being screened for cancers such as breast, cervical, and colorectal cancer, although Utah is still below the national averages for percentage of adults screened.
- More adults (70%) are receiving annual influenza vaccination in 2001 than in previous years.
- The number of Utahns who are living with HIV or AIDS (1,781 in 2001) has steadily increased. In 2000, 66 new HIV cases and 143 new AIDS cases were reported. HIV and AIDS are still incurable, but improvements in treatment allow for prolonged life for persons infected with the virus.

- Over 500 Utahns succumb to diabetes-related death each year in Utah, and the death rate for this disease has continued to increase.
- Births to adolescents declined throughout the past two decades and continue to do so. In 2001, there were 1,086 births to Utah girls aged 15 to 17 (18.5 per 1,000 girls in that age group).
- Rates of most reportable infectious diseases, including vaccine-preventable diseases (e.g., pertussis, measles), food-borne diseases (e.g., *Salmonella*, *E. coli*), and other infectious diseases (e.g., tuberculosis, gonorrhea, syphilis) were low. One exception is chlamydia, a sexually-transmitted disease for which rates have remained at about one case in every 1,000 persons in the population.

Summary of Findings

Health Care Services and Systems

- Access to health care is still a problem for many Utahns. In 2001, almost 200,000 Utahns lacked health insurance coverage, and 240,000 who had coverage were underinsured. Those without health insurance are more likely to lack a primary medical provider and often go without medical, mental health, and dental care until health problems become difficult and costly to treat. Each year in Utah, thousands of persons are hospitalized for conditions that would have been easier, cheaper, and more effectively treated in outpatient settings.
- Utah's Children's Health Insurance Program (CHIP) was implemented in 1998 and now has over 20,000 children on its rolls. Still, in 2001 there were nearly 55,000 children (through age 18) without health insurance in the state, 36,000 of whom lived in households with incomes under 200% of the federal poverty level.
- Under a recently-approved Medicaid waiver, Utah adults age 19 to 64 with incomes under 150% of the Federal Poverty Level will be eligible for coverage under a new "Primary Care Network" insurance plan. In 2001, there were approximately 144,000 adults age 19 to 64 who were not covered by any type of health insurance, 62,000 of whom had incomes under 150% of the Federal Poverty Level.
- The UDOH regulates Utah's health facilities and is authorized to cite, fine, and even suspend licenses of facilities that do not meet minimum standards for health and safety. Public outreach educates consumers on what qualities to look for, beyond that minimum standard.
- Utah has completed the first year of a study of methods for tracking patient safety and reducing medical adverse events in hospitals. From 1995 to 2000 in Utah, one patient in 250 hospital discharges (4,453 patients) experienced a medical error or complication, usually consisting of cuts, punctures, or perforations during medical care. A total of 62,000 (6% of all discharges) involved other complications of medical and surgical procedures. An additional 26,000 (2.6%) were complicated due to medications, and 34 sentinel events were reported during the one-year reporting period, including deaths, loss of physical or mental function, and wrong site or wrong patient surgeries.
- The UDOH supports access to emergency medical services throughout the state, including grants to over 150 local Emergency Medical Services agencies to assist them in providing adequate emergency medical services within their communities.

Health Screening and Preventive Care

- Utah has dramatically improved its delivery of preventive services to children, especially immunizations among two-year-olds. The state and local immunization programs launched tracking systems, reminder cards, and a media campaign that have been successful at improving Utah's rates. Utah's immunization rate (4:3:1:3:3) has improved from 43.7% in 1995 to 66.1% in 2001.

- The percentage of pregnant women who seek prenatal care in the first trimester of pregnancy appears to have leveled off at around 78%. Barriers to prenatal care include cost, availability of appointments, and lack of health insurance coverage for care.
- Having a routine dental cleaning and check-up is important for overall oral health. Among adults in Utah during 2001, 71% had a routine dental cleaning in the past year.
- In 2000, 76% of Utah women age 50 or over had had a mammogram in the past two years, and 83% of women age 18 or over had had a Pap smear in the past three years.
- Routinely checking blood pressure and cholesterol are important for combating heart disease, Utah's leading cause of death. 84% of Utah adults have had their blood pressure checked in the past two years.
- Almost all Utah newborns (99%) are screened for metabolic disorders. In 1996, only about a third of all newborns were screened for a hearing disorder before they were discharged from the hospital, but today, almost all are (97% in 2001).

Risk Factors for Illness

- In 2001, over half of all Utah adults (55%) were at increased risk of adverse health effects due to their weight, with 20% being obese. The percentage of obese adults in Utah has doubled from 10% in 1990.
- In 2001, only a quarter (26%) of Utah adults had regular physical activity (30 minutes of light or moderate activity 5 times a week).
- Utah has the lowest smoking rates in the U.S. In 2001, 13% of adults smoked cigarettes. In 1999, 12% of Utah youth in grades 9-12 smoked cigarettes, down from 16% in 1997; 90% of adult smokers began as adolescents.
- Two thirds of Utah drivers and front seat passengers, and 76% of children age 0-8 were observed to be properly restrained (seat belt or car seat) in a 1999 study by the Utah Department of Public Safety.
- Utah high school students were less likely to drink alcohol in the last 30 days compared with those in the U.S. (17.9% vs. 47.1%, 2001). Binge drinking among adults was less common in Utah (Utah 9.7%, U.S. 14.6%, 2001). However, there are still 50 alcohol and drug-related motor vehicle crash fatalities each year in Utah.
- In 2001, 8.2% of all Utah births were to mothers aged 19 or younger (3,914 births). In a 1999 survey of mothers, one third indicated that their pregnancy had been unintended. Among mothers aged 19 and younger, over 80% indicated that the pregnancy was unintended.
- Virtually all (98%) Utah adults surveyed in 2000 believed that children should receive HIV/AIDS education in school, and over two thirds (68.8%) thought it should begin in elementary school grades.
- One fourth of Utah adults believe there is at least some chance that they will become infected with HIV, and 28.4% were tested for HIV in the past 12 months.

Common Preventable Diseases and Conditions

- Motor vehicle traffic crashes are the leading cause of injury death in Utah, causing approximately 300 deaths each year, 25,000 emergency department visits, and almost $27 million a year in hospital charges. The most important factors contributing to motor vehicle traffic crash injuries are failure to use seat belts, excessive speed, and driving under the influence of alcohol or drugs. Other injuries, such as suicide, falls, and firearm-related injuries, account for a significant proportion of deaths among Utahns.
- Utah's rates of the food-borne infections salmonellosis and *E. coli* have decreased in the last two or three years. However, Utah's local health departments have only half the staff they need to perform restaurant inspections, leaving Utahns at greater risk for serious food-borne illnesses.
- Other serious infections, such as tuberculosis and HIV/AIDS, continue to infect many Utahns each year. Chlamydia is the most frequently reported sexually transmitted disease in Utah and the U.S. Utah's chlamydia rates are less than half the U.S. rates, but Utah still reports over 2,500 cases annually.
- During 2002, West Nile Virus spread rapidly across the U.S. and was detected in animals or humans in most of Utah's surrounding states. It will almost certainly occur in Utah during 2003.
- Working in collaboration with health care providers and Utah's 12 local health departments, the UDOH manages a system to track nearly 70 reportable communicable diseases. Interventions to prevent further cases and to control outbreaks are initiated based on that surveillance system.
- Utah's infant mortality rate (4.8 per 1,000 live births, 2001) is lower than that of the U.S., and among the lowest of all states. Interventions, such as prenatal care, newborn intensive care, and "backsleeping" to prevent sudden infant death syndrome, have been great successes for medicine and public health.
- The UDOH works to reduce illness, disability, and death from chronic conditions by promoting healthy lifestyles, screening for diseases such as heart disease and cancer, and by educating consumers, providers, and others about effective treatment and management strategies for chronic diseases such as arthritis, asthma, and diabetes.

Public Health Assessment

- A 1988 Institute of Medicine report recommended that government's role in public health was to 1) assure delivery of quality health care, 2) develop health policy, and 3) assess the health status of the population. Utah's assessment efforts include regular monitoring of infectious diseases and environmental health hazards, surveillance of health events (e.g., births, deaths, hospitalizations), monitoring health system characteristics, and tracking population health status and progress toward health objectives.
- Local health departments are often the front line for the reporting of communicable diseases and other events, such as signs and symptoms of exposure to biologic agents of terrorism. Utah's Health Alert Network (HAN) consists of a network of local, state, and private health providers who share information through instantaneous electronic transmission to provide a timely response to disease outbreaks whether natural or the results of terrorism.

- Using federal funds, the UDOH has substantially improved preparedness for a possible bio-terrorist attack, including improving ability to detect an attack and preparedness to respond should such an attack occur.
- The Utah Department of Health promotes evidence-based decision-making by improving the use of health information to guide health policy decisions and evaluate our efforts to assure the health of Utahns, and affording access to public health data and information through its on-line Indicator-Based Information System for Public Health (http://health.utah.gov/ibis-ph).

Utah Public Health on the Internet

- Utah Department of Health (UDOH) – http://health.utah.gov
  - Indicator-Based Information System for Public Health (IBIS-PH) – http://health.utah.gov/ibisph/
  - Vital Records and Statistics – http://health.utah.gov/bvr/
  - Health Care Statistics – http://health.utah.gov/hda/
  - Health Data Publications – http://health.utah.gov/ibis-ph/reports.html

UDOH Division of Epidemiology and Laboratory Services – http://www.health.utah.gov/els/

- Office of Epidemiology – http://www.health.utah.gov/els/epidemiology/
- Communicable Disease Control – http://www.health.utah.gov/els/epidemiology/comdisease.html
- HIV/AIDS – http://www.health.utah.gov/els/hivaids/index.html
- Sexually Transmitted Diseases – http://www.health.utah.gov/els/epidemiology/index.html
- Food and Water Borne Diseases – http://www.health.utah.gov/els/envsvc/index.html
- Environmentally Related Diseases – http://www.health.utah.gov/els/epidemiology/envepi/
- State Laboratory – http://www.health.utah.gov/html/lab___ome.html
- Office of the Medical Examiner – http://health.utah.gov/ome/

UDOH Division of Community and Family Health Services – http://health.utah.gov/cfhs/index.html

- Healthy Lifestyles – http://health.utah.gov/html/healthy_lifestyles.html
- Behavioral Risk Factor Surveillance System (BRFSS) – http://www.cdc.gov/brfss/
- Cardiovascular Program – http://www.hearthighway.org/
- Diabetes Program – http://health.utah.gov/diabetes/
- Arthritis Program – http://health.utah.gov/arthritis/
- Asthma Program – http://health.utah.gov/asthma/
- Tobacco Prevention and Control – http://www.tobaccofreeutah.org/
- Baby Your Baby – http://health.utah.gov/cfhs/he/byb/
- Immunizations – http://www.immunize-utah.org/default.htm
- Children With Special Health Care Needs – http://health.utah.gov/cshcn/

- Oral Health – http://health.utah.gov/oralhealth/
- Violence and Injury Prevention Program – http://www.health.utah.gov/cfhs/he/vipp/
- Maternal and Child Health – http://www.health.utah.gov/html/mom___child_health.html

UDOH Division of Health Systems Improvement – http://health.utah.gov/hsi/

- Emergency Medical Services – http://health.utah.gov/ems/
- Licensing, Certifying – http://health.utah.gov/licensing/
- Medicare/Medicaid Certification – http://health.utah.gov/pcra/
- Primary Care and Rural Health – http://health.utah.gov/primary_care/

UDOH Division of Health Care Financing (Utah Medicaid Program) – http://health.utah.gov/medicaid/

- Children's Health Insurance Program (CHIP) – http://health.utah.gov/chip/

Utah's Local Health Departments – http://www.health.utah.gov/lhd/

National Links

- U.S. Department of Health and Human Services – http://www.hhs.gov/
- National Institutes of Health – http://www.nih.gov/
- Centers for Disease Control and Prevention – http://www.cdc.gov/
- American Public Health Association – http://www.apha.org/

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Preface

The Institute of Medicine, a national health advisory institute chartered by the National Academy of Sciences, issued a statement on the role of government in public health in 1988[1]. They proposed government's role to be three-pronged: 1) to develop policy that supports the health of populations, 2) to assure access to health care and the quality of that care, and 3) to assess the health status of the population.

An understanding of the health status of a population is necessary to plan, implement, and evaluate public health programs that intend to control and prevent adverse health events. The U.S. Public Health Service responded to the need for accurate and timely public health assessment data in *Healthy People 2000 National Health Promotion and Disease Prevention Objectives*[2] by recommending that public health entities regularly and systematically track measures of population health. The objectives were updated in 2000, setting goals for the year 2010.[3] (More information about Healthy People 2010 may be found on the Internet at http://www.healthypeople.gov.)

Over the past decade, the Utah Department of Health has substantially improved its assessment capacity by 1) establishing the Office of Public Health Assessment to support and coordinate public health assessment activities across the Department, 2) establishing the Office of Health Care Statistics (formerly the Office of Health Data Analysis) to collect, analyze, and disseminate health care system data, 3) affording easy access to major data bases and developing methods to analyze the data contained in them, including development of innovative interactive information systems, and 4) substantially improving the use of health information to guide health policy decisions and evaluate our efforts to assure the health of Utahns.

The Utah Department of Health regularly publishes a variety of outcome measures for the following purposes:

- Track and evaluate progress toward goals
- Guide policy decisions, priorities, and long-range strategic plans
- Develop, focus, and streamline data collection and reporting capacity in the Department
- Provide comprehensive information of Utah's health and health care system to inform anyone involved in private or public health activities

Many, but not all, of the Department's outcome measures have been included in this report. The Department is presently undertaking a major effort to standardize health status and health system indicators across programs, and publish those indicators through a variety of media. Persons seeking additional information may want to visit the Department's Indicator-Based Information System for Public Health (IBIS-PH) at http://health.utah.gov/ibis-ph.

Utah Department of Health Mission

The mission of the Utah Department of Health is to protect the public's health through:

- **preventing avoidable illness, injury, disability, and premature death;**
- **assuring access to affordable, quality health care; and**
- **promoting healthy lifestyles**

The Department will implement this mission through assessment, policy development, and assurance.

Assessment

- Collecting, analyzing, and disseminating information on public health, including data on health status, community health needs, the health care delivery system, and their relationships to health.
- Identifying and prioritizing health problems.

Policy Development

- Proposing public health policies, rules, and initiatives based on data assessment.
- Seeking public input in the development of public health policies, rules, and initiatives.
- Advocating the adoption and implementation of policies that promote healthy lifestyles and protect the public's health.

Assurance

- Developing standards and procedures and assuring compliance with public health rules and laws.
- Planning and implementing programs that assure availability of affordable and acceptable health care and basic public health services for all Utahns.
- Strengthening local health departments and fostering community and private sector health activities.

Utah Department of Health Organization

The Utah Department of Health is organized into four divisions and several support function offices, such as Human Resource Management, Fiscal Operations, and Information Technology.

- The **Division of Health Care Financing** (HCF) administers the Utah Medicaid program and focuses on optimizing the cost, access, and quality of health services paid for by Medicaid.

- The **Division of Community and Family Health Services** (CFHS) conducts statewide prevention-oriented programs and medical care services in the areas of reproductive health, child and adolescent health, dental health, chronic disease, and violence and injury prevention.

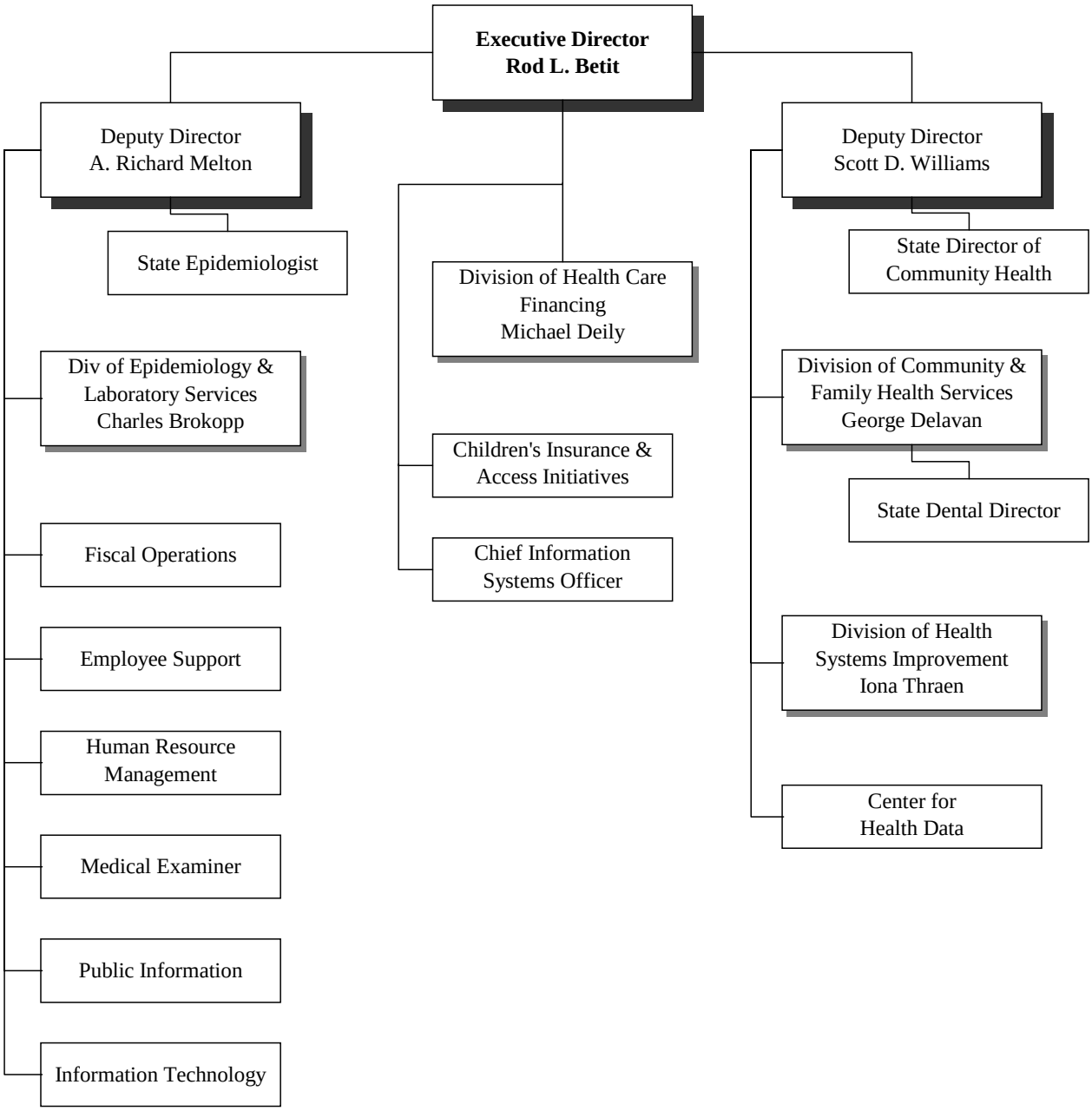
- The **Division of Health Systems Improvement** (HSI) assures quality by enforcing minimum standards among designated health (nursing homes, assisted living, emergency response, ambulatory surgical centers, and others) and child care facilities and providers and assists the development of health systems in primary care, rural, emergency, and ethnic health.

- The **Division of Epidemiology and Laboratory Services** (ELS) performs essential laboratory tests and quality assurance; works with local health departments to conduct notifiable disease surveillance, and to investigate outbreaks of disease and suspected bio-terrorism to identify and eliminate the sources; and coordinates statewide prevention services for HIV/AIDS, sexually transmitted diseases, and tuberculosis.

- The **Office of the Medical Examiner** (OME) investigates deaths that occur under circumstances that may have implications for the public's health and safety.

- The **Center for Health Data** (CHD) provides an integrated understanding of Utah's health and health systems and includes the Office of Vital Records and Statistics (OVRS) which provides legal birth and death certificates and vital statistics information; the Office of Health Care Statistics (OHCS) which collects and analyzes hospital, physician, emergency department, Medicaid, and health plan data to identify patterns of utilization, cost, effectiveness, variation, and consumer satisfaction in Utah's health care systems; the Office of Public Health Assessment (OPHA) which collects, analyzes, reports, interprets, and distributes health information of Utah's health status and health behaviors; and the Utah Statewide Immunization Information System (USIIS), a voluntary, restricted-access, registry of childhood vaccinations.

Utah Department of Health
Organizational Chart



Primary Roles of the Four Health Services Divisions in the Utah Department of Health

	Health Systems Improvement	Health Care Financing	Epidemiology and Laboratory Services	Community and Family Health Services
Health Care Services and Systems				
Access to Care	(supportive role)	■		(supportive role)
Quality of Care	■	(supportive role)	(supportive role)	
Cost of Care		■		
Health Care Utilization	(supportive role)	■		(supportive role)
Risk Factors for Illness				
Environmental Risk Factors			■	
Lifestyle Risk Factors				■
Health Screening and Preventive Care				
Preventive Health Visits and Screening		■		■
Prenatal Care		■		■
Immunizations		■		■
Common Preventable Diseases and Conditions				
Health Problems Among Pregnant Women and Infants		■		■
Infectious Diseases			■	(supportive role)
Injury and Violence	(supportive role)			■
Chronic Diseases		■	(supportive role)	■
Common Diseases Causing Death in Adults			■	■
Dental Disease		■		■

Shaded boxes indicate **primary** functions of each division.

- Local health departments also provide many essential health services (see page xx).

Utah Department of Health
Fiscal Year 2002 Revenues and Expenditures

Health

	Actual FY2001	Actual FY2002	Authorized FY2003
Financing			
General Fund	$ 194,777,900	$ 220,683,539	$ 231,560,500
Federal Funds	710,584,901	805,534,694	889,120,026
Dedicated Credits	66,277,272	103,592,478	101,598,641
Restricted and Trust Funds	25,161,700	16,384,600	16,483,500
Transfers	90,494,456	88,619,395	93,621,024
Beginning Balances	3,542,183	8,031,920	3,874,622
Closing Balances	(8,062,581)	(3,874,566)	(2,567,613)
Lapsing Funds	(693,026)	(55,937)	-
Total Financing	$1,082,082,805	$1,238,916,123	$1,333,690,700
Program Expenditures			
Executive Director's Office	$ 12,151,209	$ 13,089,501	$ 21,309,300
Health Systems Improvement	11,833,771	13,427,519	14,041,700
Epidemiology and Lab Services	13,890,950	17,198,071	17,410,500
Community & Family Health	80,816,137	85,305,254	96,255,600
Health Care Financing	67,722,683	78,860,943	80,431,200
Medical Assistance	872,041,299	1,000,890,048	1,074,511,700
Children's Health Insurance Program	23,626,756	30,144,786	29,730,700
Total Budget	$1,082,082,805	$1,238,916,122	$1,333,690,700
Positions	1,226	1,258	1,244

Local Public Health

- At the local level, public health services in Utah are organized into 12 health districts with 55 service delivery sites. Six of the 12 local health departments are single county and six are multi-county districts.

- The local health districts in Utah include the following:
    - Bear River (Box Elder, Cache, Rich counties)
    - Central Utah (Juab, Millard, Piute, Sevier, Wayne, Sanpete counties)
    - Davis County
    - Salt Lake Valley
    - Southeastern Utah (Carbon, Emery, Grand, San Juan counties)
    - Southwest Utah (Garfield, Iron, Kane, Washington, Beaver counties)
    - Summit County
    - Tooele County
    - Tri-County (Daggett, Duchesne, Uintah counties)
    - Utah County
    - Wasatch County
    - Weber-Morgan

- Local health departments provide many essential health services including investigation of disease outbreaks, regulation of known sources of health hazards such as food establishments, and health education and prevention services such as immunizations and preventive health screenings.

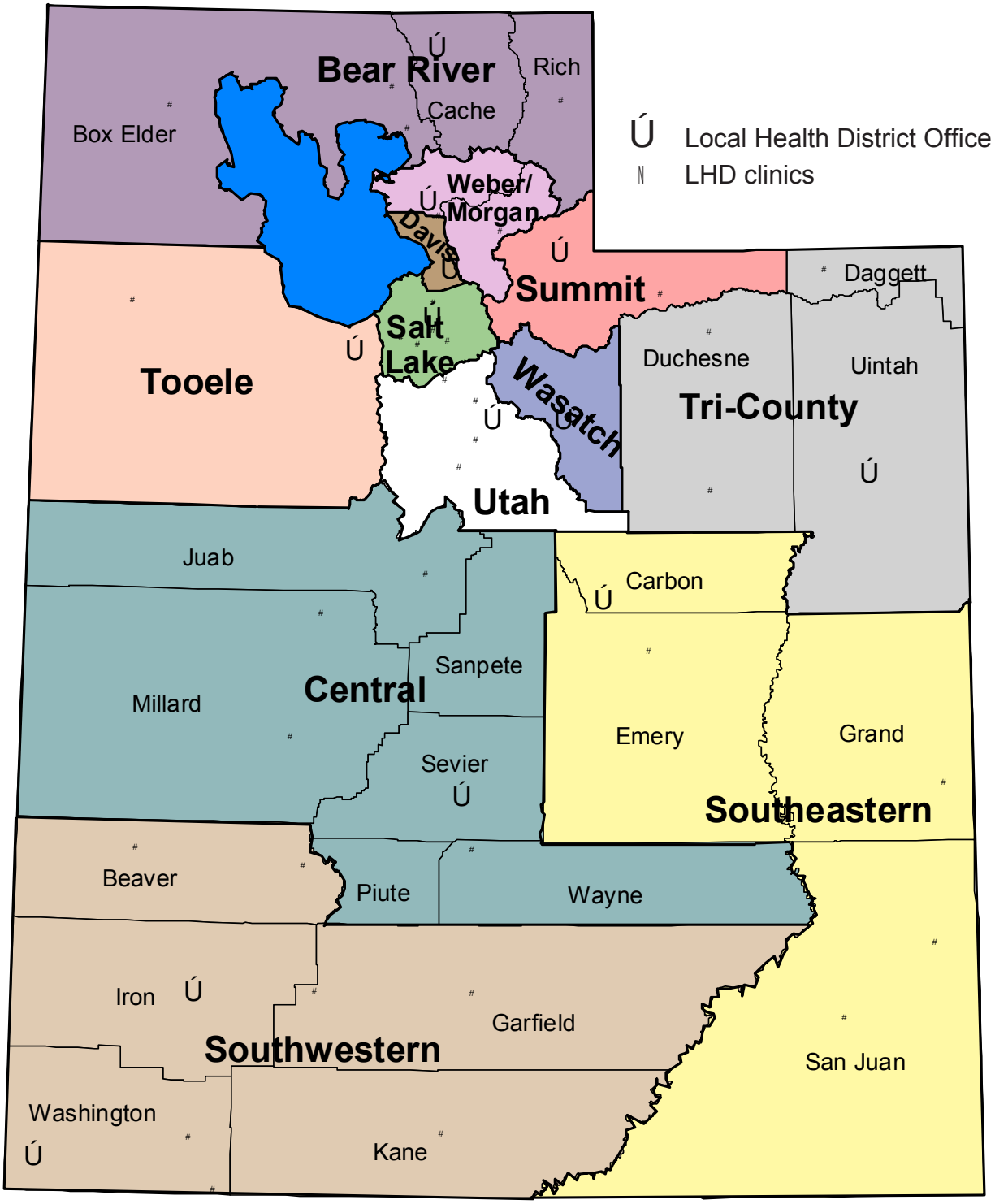
- The private health care system, including hospitals, physicians, health plans, schools, and private-non-profit agencies, deliver many important local public health services as well.

- The highest priority health problems vary among local districts, especially between the more urbanized Wasatch Front districts and the more rural districts.

- During the 2002 Winter Olympics, local health departments assured availability of coordinated emergency medical services, enforced environmental and food regulations, performed disease surveillance and control, and participated in disaster preparedness and public information.

- Local health departments are often the front line for the reporting of communicable diseases and other events, such as signs and symptoms of exposure to biologic agents of terrorism. HAN, Utah's Health Alert Network, consists of a network of local, state, and private health providers who share information through instantaneous electronic transmission to provide a timely response to disease outbreaks whether natural or the result of terrorism.

Local Health Districts in Utah



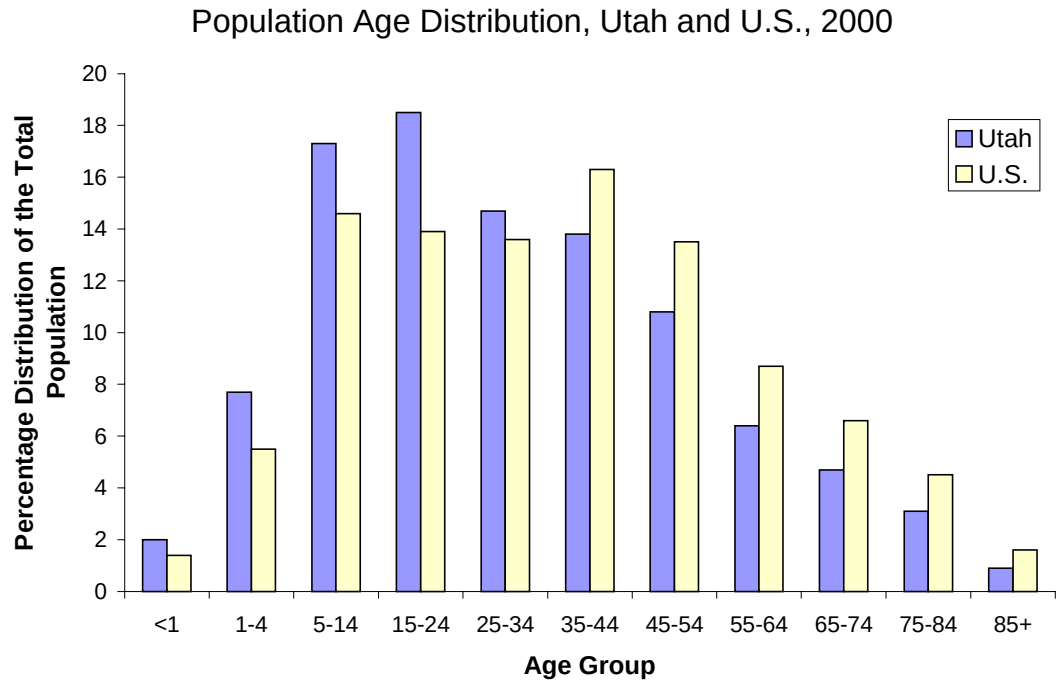
- Utah's public health capacity is provided by both state and local public health entities, as well as community health centers and community based organizations.

1. Underlying Demographic Context of the Population

A. Characteristics of the Population
B. Birth and Death Rates
C. Household and Family Characteristics
D. Socio-Economic Characteristics

Age Distribution of the Population

People's age, sex, culture, and living and working conditions affect their health in important ways that must be considered in planning for the public health of the population.

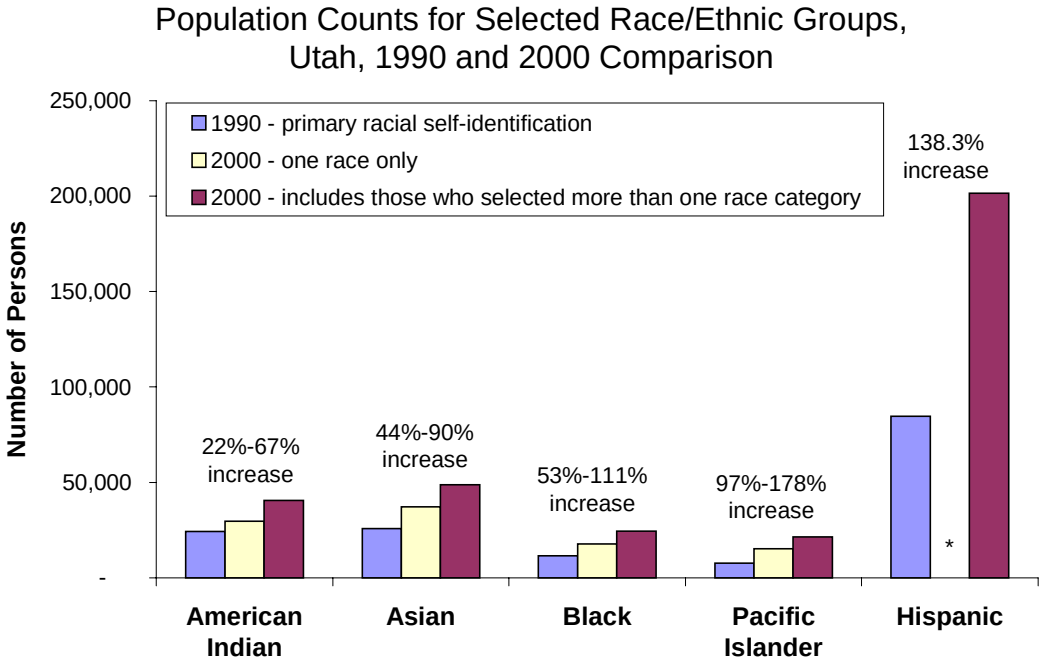


Source: U.S. Bureau of the Census
Note: The numbers that appear here are from the U.S. 2000 Census, for April 2000.

- The Governor's Office of Planning and Budget releases updated Utah mid-year (July 1) population estimates and projections by year, county, sex, and single year of age. Those estimates are generated by the Utah Process Economic and Demographic (UPED) model, and are typically released each January with the Economic Report to the Governor. Numbers from that model are available on the IBIS query system (from IBIS Homepage, click "Query Databases" and select "General Population Estimates.")
- Utahns are on average younger than the rest of the U.S. population.
- In the 2000 U.S. Census, 44% of Utah's estimated 2.3 million people were age 24 or under, compared with 34% in the U.S.
- Age is one of the most important risk factors for many diseases, including Utah's leading causes of death, heart disease, and cancer. The relative youth of Utah's population is one important factor in our relative good health. In order to remove the "age effect" and allow accurate comparisons, health data are commonly age-adjusted for presentation in reports such as this one.
- Utah had 701,281 households according to the 2000 Census. Utahns had larger households, on average: 3.13 persons compared with 2.59 in the U.S. from state ot state.

Utah's Racial and Ethnic Populations

Racial and ethnic diversity is growing dramatically in Utah. Our current health system was developed based on the needs of the White/Anglo-type Utah culture. As a result, Utahns of other cultures experience barriers to receiving health care.



Source: U.S. Bureau of the Census

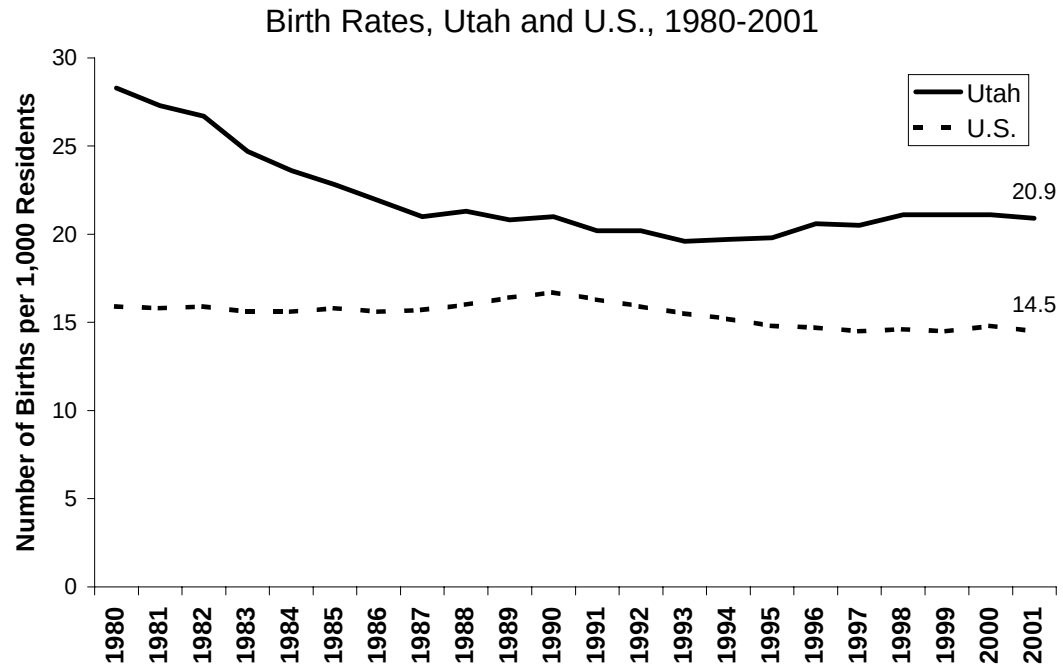
* Hispanic or Latino ethnicity is always measured in combination wiracial characteristics. It is considered to be a concept separate from race.

Note: The Census Bureau methodology for measuring race changed in the year 2000. The percentage increase is listed as a range. Had the methodology stayed the same, the increase from 1990 would be somewhere in the middle of the range listed.

- The Black, Asian, Pacific Islander, and Hispanic/Latino populations are growing at faster rates than the state population as a whole.
- Three out of every twenty Utahns belongs to an ethnic or racial minority group. Most are either Hispanic, Asian, Pacific Islander, American Indian, or Black.
- Utah's diverse ethnic populations often have special needs for health care services.
- Especially for new immigrants, the health system is complicated and unfamiliar. Persons from different cultures often need information to better understand how to meet their needs through that system.
- Prior to 2000, individuals were asked to report their primary race on the census form, and were also asked to report whether they were of Hispanic origin. But in the year 2000, citizens were asked to check all racial and ethnic categories that applied to them. The minimum categories required by the new methodology include: American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White; and Some Other Race. Sixty-three possible combinations of the six basic racial categories exist, including six categories for those who report exactly one race, and 57 categories for those who report two or more races.

Birth Rates

Birth rate is simply the number of births in a given year per 1,000 persons in the population. Tracking birth rate patterns among Utah and U.S. women as a whole are critical to understanding population growth and change in this country and in our individual state.



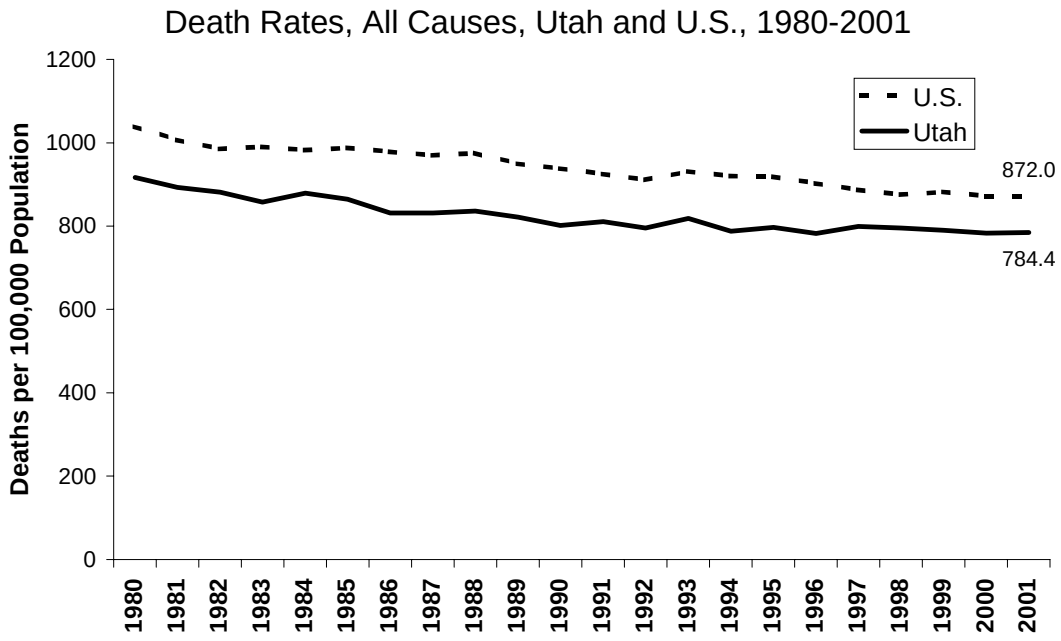
Source: Office of Vital Records and Statistics, Utah Department of Health

Note: 2001 data are preliminary

- Utah continues to report the highest birth rate in the nation (20.9 per 1,000 total population in 2001). The overall U.S. rate (14.5 per 1,000 population in 2001) is considerably lower, with several states (Maine and Vermont) reporting rates as low as 10.6 per 1,000 total population in 2000.
- The pattern of age-specific fertility rates (number of births to women of a given age group, per 1,000 women in that age group) for Utah is similar to that of the nation, although women give birth at somewhat younger ages than women in the U.S. as a whole. This finding may be related to the fact that Utah women tend to marry younger than women who live elsewhere in the U.S.
- Recent reports have indicated that close interpregnancy spacing increases risk for adverse pregnancy outcomes. Although national data on this indicator are unavailable for comparison, Utah's high birth rate would indicate that women experience shorter interpregnancy spacing than in the U.S. as a whole.
- Family planning services are available in Utah from several sources: community and private providers, Title X clinics (Planned Parenthood Association of Utah), and city and county health departments. Utah law requires parental consent for minors to obtain contraception information and services from local health departments in Utah.

Death Rates: Deaths From All Causes

The overall death rate of a population reflects the average life expectancy of individuals in that population. The lower the death rate, the higher the life expectancy.



Sources: U.S. Bureau of the Census; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget

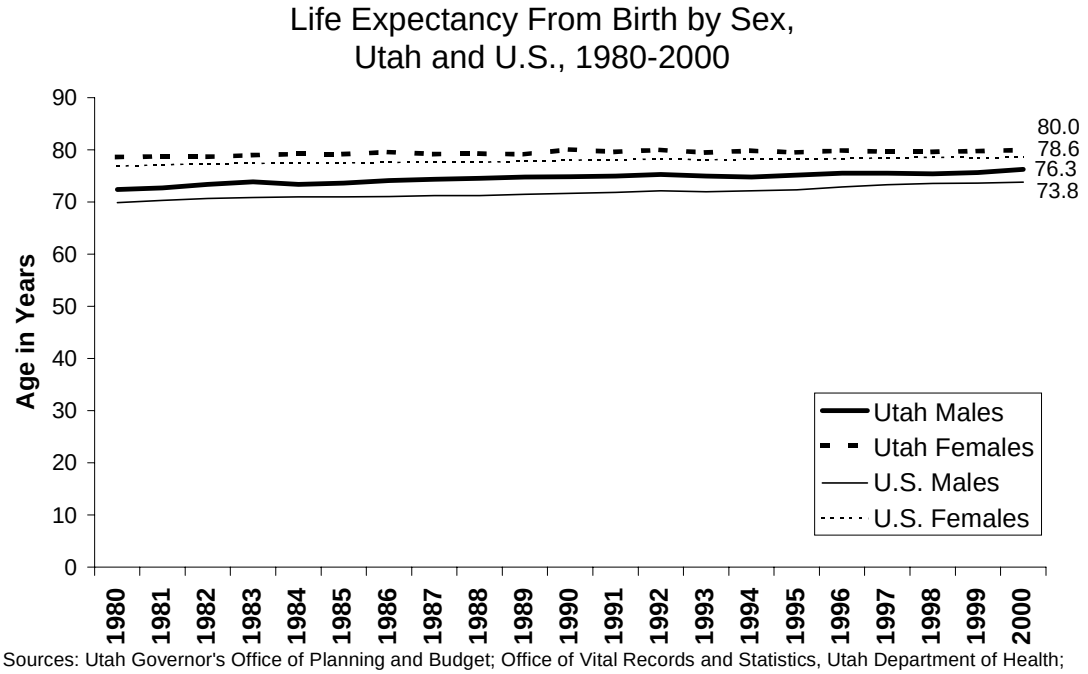
Note: Age-adjusted to U.S. 2000 standard population

- In 2000, 12,607 Utah residents died. The Utah death rate, adjusted for differences in the ages of the populations, is about 5% lower than the death rate for the United States. Although Utah's death rate is still below that of the U.S., Utah's rate has leveled off, while the U.S. rate continues to decline. The leading causes of death (heart disease, cancer, and stroke) are much the same for Utah and the rest of the U.S., regardless of sex, race, or ethnicity.
- Factors contributing to the low death rate in Utah include healthy lifestyles (especially low rates of tobacco, alcohol, and substance use), lower rates of poverty, and better access to excellent health care. An important implication of the decreasing death rates of Utahns is that there are increasing numbers of older individuals. This trend will place increasing economic demands on Utah's health care and social security systems and need for long-term health care.
- Advances in medical technology are one of the factors lowering death rates in Utah and elsewhere. One issue with extending lives through medical technology is that individuals often have chronic disabilities that have implications for their quality of life. Healthy lifestyles and early detection of disease lead to both longer life and improved quality of life across the lifespan.
- The UDOH Office of Vital Records and Statistics certifies Utah's deaths and maintains records of specific characteristics such as cause of death, age of decedent, and other factors associated with the incident, such as firearms, motor vehicles, or drug overdoses.

Life Expectancy at Birth

Shifts in life expectancy are often used to describe trends in mortality. Being able to predict how populations will age has enormous implications for the planning and provision of services and support. Small increases in life expectancy translate into large increases in the population.

As the life expectancy of a population lengthens, the number of people living with chronic illnesses tends to increase because chronic illnesses are more common among older persons.



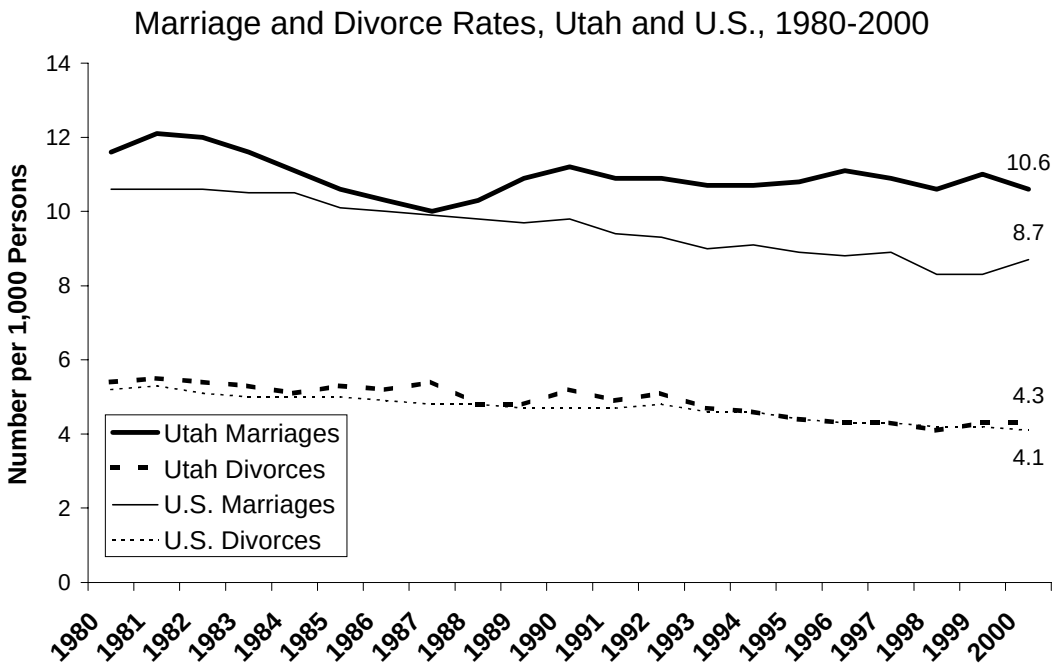
Sources: Utah Governor's Office of Planning and Budget; Office of Vital Records and Statistics, Utah Department of Health; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Note: Age-adjusted to U.S. 2000 standard population

- Prevention and control of infectious diseases has had a profound impact on life expectancy during the 20th century. In the United States life expectancy at birth from 1900 to 2000 increased from 48 to 74 years for men, and from 51 to 79 years for women. In contrast to life expectancy at birth, which increased sharply early in the century, life expectancy at age 65 improved primarily after 1950. Among men, life expectancy at age 65 rose from 12 to 16 years and among women from 12 to 19 years. Improvements in nutrition, hygiene, and medical care contributed to decreases in death rates throughout the lifespan.
- Women typically outlive men. Females born in Utah today can expect to live 81 years, and males born in Utah can expect to live 76 years. Utah ranks 49th in the percentage of the population over age 65.
- Now that people are living longer, it is important to look at ways that those added years can be lived in good health. Exercise, healthy diet and weight, not smoking, moderate use of alcohol, and injury prevention habits such as wearing seat belts all contribute to a healthy life span.
- Improvements in life expectancy increase the proportion of older individuals living in society. Policy-makers must be aware of this trend in order to provide viable and attractive options for elderly persons who require assistance with activities of daily living.

Marriage and Divorce

Marriage and divorce are important determinants of the social structure of a population, which affects its health status. Marriage and divorce rates are simply the number of marriages (or divorces) per 1,000 persons in the population.

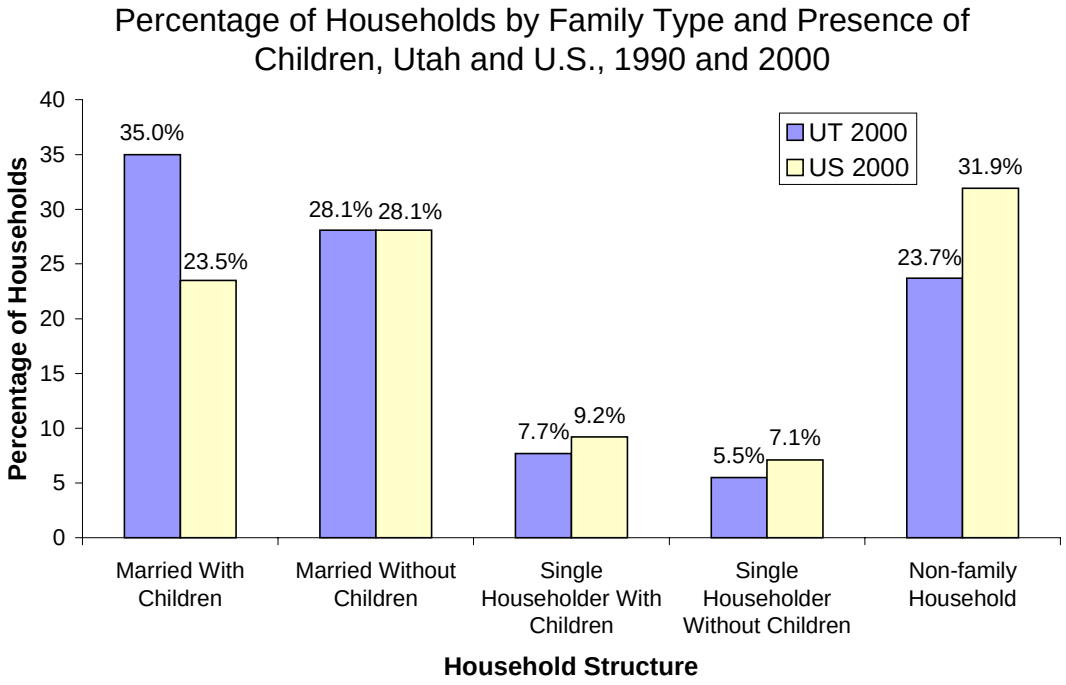


Source: Office of Vital Records and Statistics, Utah Department of Health

- Utah's divorce rate is very similar to that found in the U.S., but our marriage rate is higher.
- In the 2000 U.S. Census, 59.5% of Utahns age 15 or over were married, compared with 54.4% in the U.S.

Household Structure

The number of parents living with a child helps to determine the human and economic resources available to that child. Children who live with one parent are more likely to live in poverty than are children who grow up in households with two adults. Single parents also face specific challenges including lack of leisure time, increased need for child care, and stressed financial resources, that are exacerbated by their household situation.



Source: U.S. Bureau of the Census

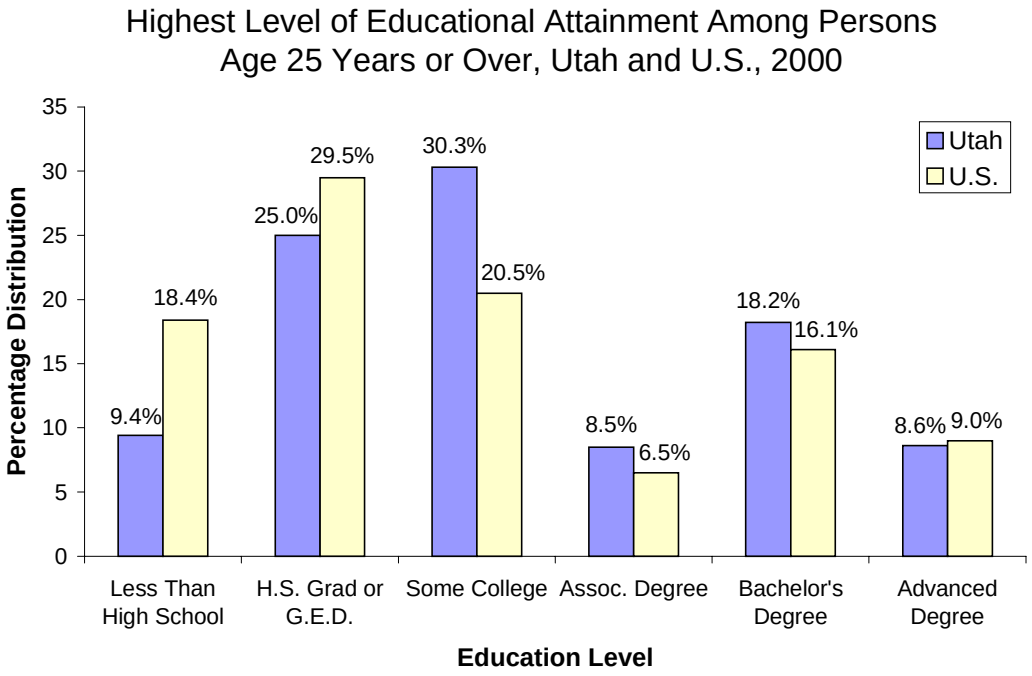
Note: A "non-family household" is one that includes a householder living with non-relatives only.

- Non-family households (either a householder living alone or with other, unrelated, persons) constituted less than a quarter (23.7%) of Utah households in the 2000 decennial census, essentially unchanged from 1990. The proportion of single householders with children was 7.7%, also essentially unchanged from 1990. However, the likelihood that the household was headed by a female declined slightly, owing to a small increase in the proportion of male single householders with children.
- At the time of the 2000 U.S. Census, there were a total of 126,183 Utah children under age six and 411,780 children under age 18 who had both parents or an only parent in the labor force.
- A majority (63%) of Utah households included a married couple, either with or without children. This proportion was essentially unchanged from 1990 to 2000. There was a small increase in the proportion of Utah married couples without children. While most married couples in the U.S. do not have children living with them, the majority of married couples in Utah do have children present.
- In the U.S., the proportion of non-family households (single persons and unrelated persons living together) increased form 1990 to 2000, as did the proportion of households that contained a single householder with children. The proportion of married family households, with or without children, declined.

Education Level in the Population

Education level is strongly related to health status. It is too simplistic to say that better education causes better health. It is more likely that some other factor(s), such as higher income, self-determination, mental health, or quality of social and family support, lead to both higher education levels and better health.

HEALTHY PEOPLE 2010 OBJECTIVE 7-1 GOAL: HIGH SCHOOL COMPLETION (AGES 18 TO 24 YEARS) (90%). (SEE APPENDIX)

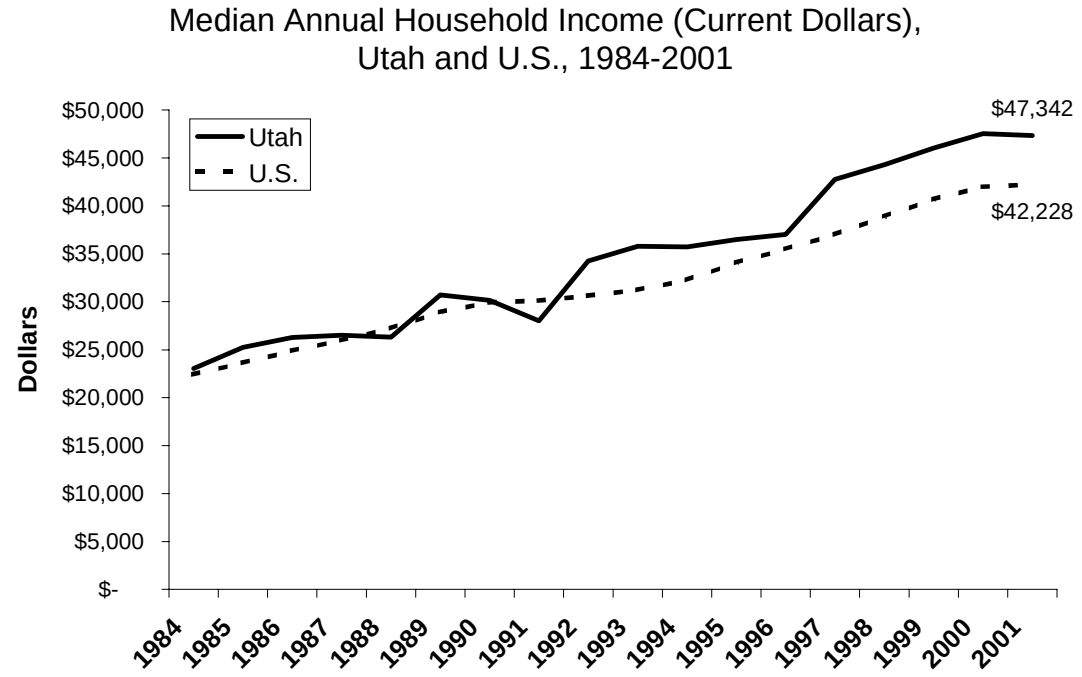


Source: U.S. Bureau of the Census

- Utahns have made some relatively large improvements in education level. Among Utah adults age 25 and over in 2000, 9.4% had less than high school education, compared with 14.9% in 1990; 36.8% had a 4-year college or post-graduate degree, compared with 22.2% in 1990.
- Education levels in the U.S. have improved markedly also, although Utahns still tend to have more years of schooling than their American counterparts on average. While 18.4% U.S. residents age 25 and over had not completed high school, only 9.4% Utahns in the same age group did not complete high school.
- Socio-economic status (including income and education) is strongly related to health status outcomes. It is unclear to what extent poor education status leads to poor health outcomes, or whether poor health leads to an inability to complete one's educational goals. Both are probably true to some extent.

Household Income

Income is strongly related to health status. Low-income persons tend to have poorer health status, in part because they cannot always afford good health care. However, some people have low income levels because their illness limits their ability to generate a good income.

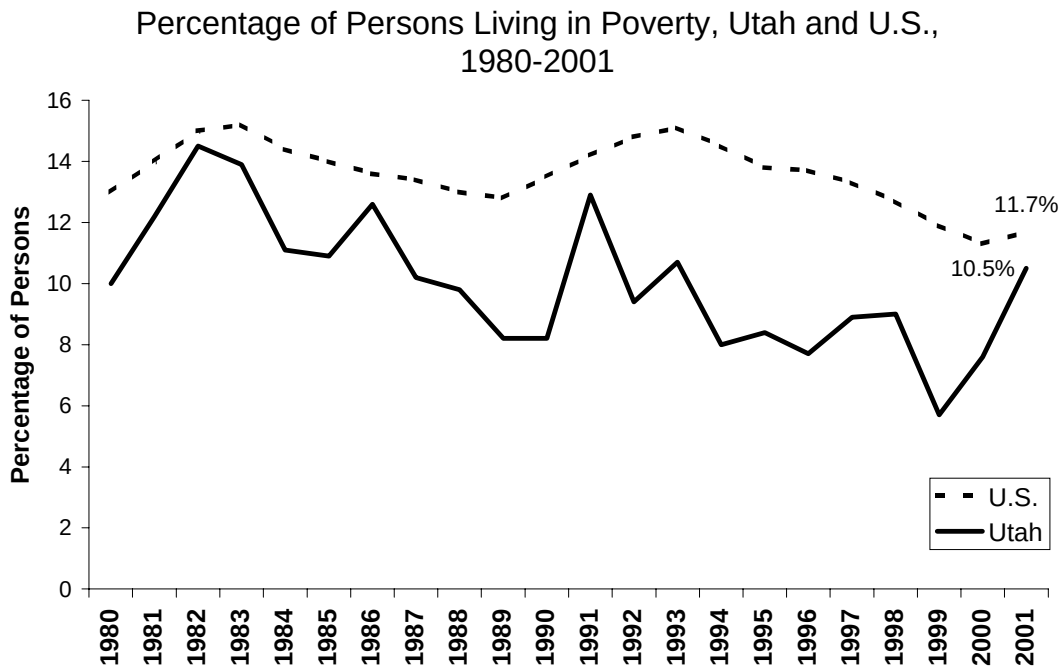


Source: U.S. Bureau of the Census

- Utah's median household income has increased since 1984, even after adjusting for inflation.
- Utah's median household income has generally kept pace with that in the U.S., but Utah's households are larger, making per capita income in Utah lower than in the U.S. overall.
- Health insurance coverage is related to income -- persons with higher household incomes are more likely to be covered by health insurance. This is true despite the fact that public programs such as CHIP and Medicaid are available to low-income persons. Until recently, however, only children, pregnant women, single parents, and disabled adults could gain Medicaid eligibility by virtue of their low income status. Now, low-income adults who are not disabled and do not have children are also eligible for certain types of coverage.

Persons Living in Poverty

Poverty takes into account both income and family size, and has both immediate and long-lasting effects on health. Persons living in poverty are worse off than persons in more affluent households for many of the indicators tracked by the Utah Department of Health.

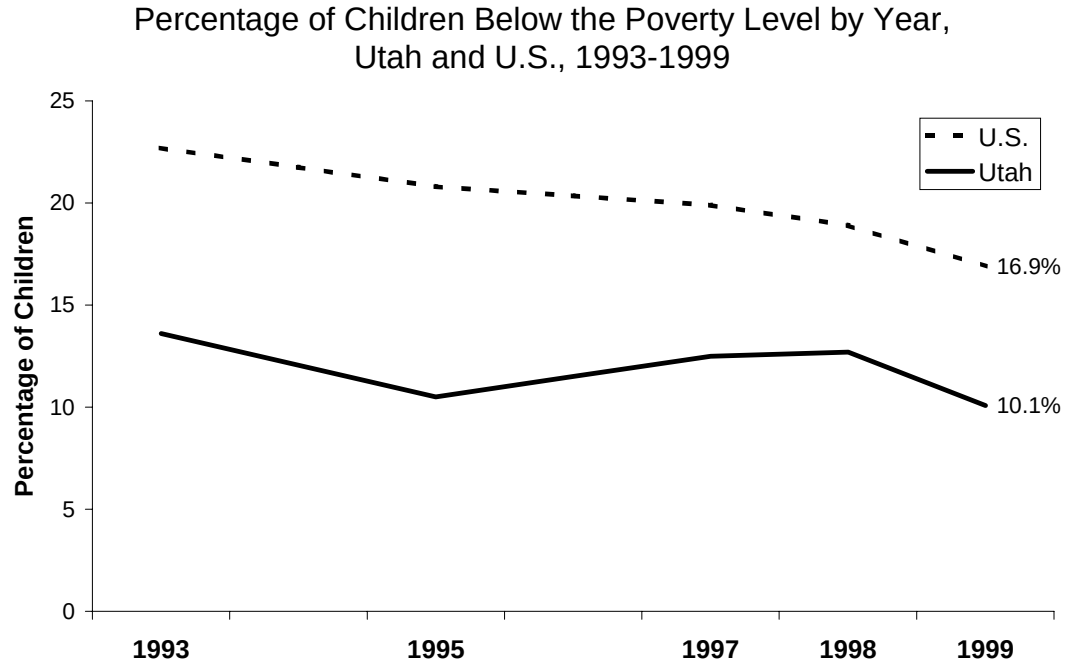


Source: U.S. Current Population Survey
Note: In 2001, the federal poverty level was $18,104 for a family of four.

- From 1980 to the present, the percentage of Utahns living at or below the poverty level reached its lowest point (6%) in 1999. However, in 2000 and 2001, the rate has increased.
- For most of the last decade, the difference between the Utah and U.S. rates was statistically significant. Utah's poverty rate was significantly lower than the U.S. rate. However, in 2001, the rate was no longer lower than that in the U.S. Utah's poverty rate is increasing, while the U.S. rate does not seem to be doing so.
- Programs such as Head Start and those that provide assistance linking people with jobs aim to reduce poverty by increasing social functioning and self-sufficiency. Other programs, such as minimum wage requirements, food stamps, Temporary Assistance for Needy Families (TANF), and government subsidized health insurance and child care provide assistance to families needing additional support.

Childhood Poverty

Poverty in the early years of a child's life, more than at any other time, has especially harmful effects on continuing healthy development and well-being, including developmental delays and infant mortality. Well-being in later childhood, such as teen pregnancy, substance abuse, and educational attainment, are also influenced by early childhood poverty.[4]



Source: U.S. Current Population Survey

- In 1999, an estimated 10% of Utah children age 17 or under, (75,000 Utah children), were living in poverty. Children born into poverty are at risk for multiple risk factors, such as lacking basic comforts, proper nutrition, and opportunities for mental stimulation and enrichment.
- Utah has a lower proportion of children in poverty than the rest of the U.S.
- Being a younger or single parent increases the risk of living in poverty.
- Families in poverty are less likely to have private health insurance coverage. Many children living at or near the poverty level are eligible for public health insurance programs, such as Medicaid and CHIP (Children's Health Insurance Program).
- Low socio-economic status is a risk factor for many diseases and health problems for persons of all ages. Children in poverty are at higher risk for health problems such as asthma and dental disease.
- Children in poverty are also at increased risk of hunger and poor performance in school. An important goal of services to children in poverty is to break the "cycle of poverty" in which children in poverty are raised in conditions that promote poverty in adulthood.

2. Health Care Services and Systems

Goal: All Utahns will have access to high-quality, affordable health care services.

A. Access to Care

1. Affordability
2. Availability

B. Quality of Health Care

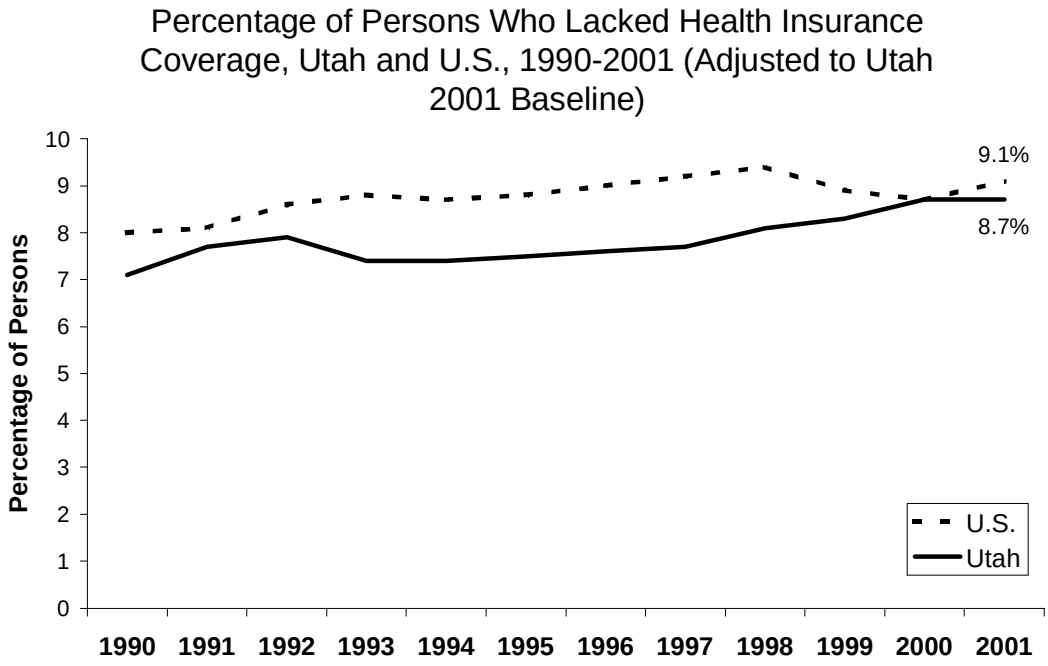
C. Cost of Health Care

D. Health Care Utilization & Preventive Services

1. Preventive Health Visits and Screening
2. Prenatal Care During First Trimester
3. Immunizations

Health Insurance Coverage

Persons with health insurance are more likely than persons without health insurance to have a regular source of primary health care, and are more likely to have routine preventive care. Health insurance coverage is an important part of the health care system. Persons without coverage find it difficult to afford health care, and often delay or fail to obtain necessary care. Dental and mental health care are especially fragile elements of health care coverage.



Sources: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health; U.S. Current Population Survey

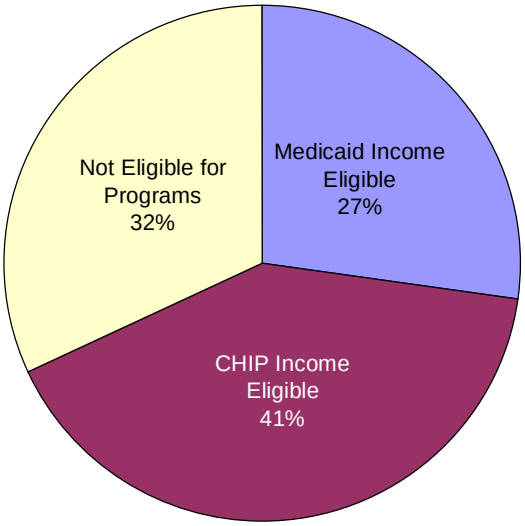
Note: The U.S. estimates presented here have been modified from those reported by the U.S. Current Population Survey (CPS). The Utah Health Status Survey (HSS) estimates were adjusted to the HSS new method, CPS estimates for the U.S. were adjusted to the CPS new method, and then adjusted to levels comparable with the 2001 Utah Health Status Survey.

- An estimated 199,100 Utahns (8.7%) were without health insurance coverage in 2001. This percentage has increased from an estimated 7.6% in 1996, when the last Health Status Survey was conducted.
- Over the past ten years, the percentage of persons in Utah and in the U.S. who lacked coverage increased. However, the Utah percentage increased at a faster rate, and is now approximately the same as the U.S. rate.
- Younger persons, especially males age 18 to 34, and those with low income levels, are at a greater risk of being uninsured. Surprisingly, three quarters of uninsured Utah adults in 2001 were employed either part-time or full-time.
- The Utah Department of Health administers programs to improve access to care, such as Medicaid, Children's Health Insurance Program (CHIP), and the new Primary Care Network (PCN). The Department also works to improve the "safety net" for persons who lack health insurance. This is done through primary care grants to rural areas and clinics for children with disabilities. Local health departments provide preventive services such as immunizations and screenings at low or no cost to eligible persons who cannot afford them.

Medicaid/CHIP Penetration

Children who are not insured by private or employer-provided plans have an opportunity to be covered by Medicaid or the Children's Health Insurance Program (CHIP) if they are age 0-18 and live in households with incomes below 200% of poverty. This measure is an estimate of the proportion of eligible children who are covered by Medicaid and CHIP, combined.

CHIP and Medicaid Program Eligibility, Children 0-18
Without Health Insurance Coverage, Utah, 2001



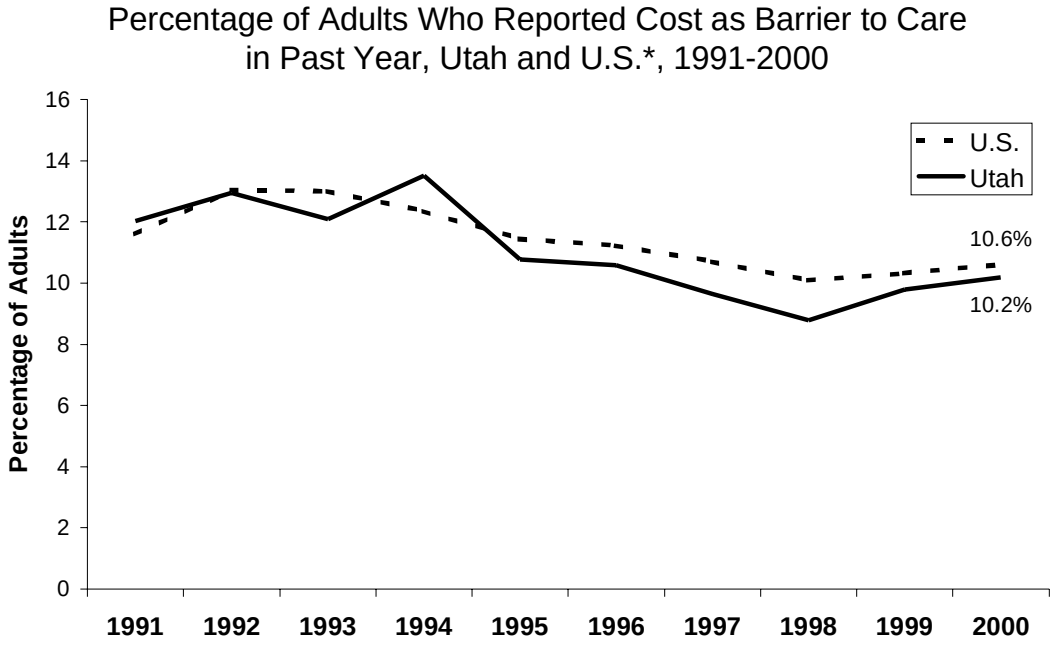
Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health

Note: Approximately 20% of the children on Medicaid also have some type of private or employer-based coverage. Children with dual coverage were coded as "Medicaid" covered for this measure.; 7% of Utah children aged 0-18 lacked health insurance coverage.

- In 2001, approximately 6.5% of Utah children were unprotected by any type of health insurance coverage. Of those children, most are eligible for either Medicaid or CHIP.
- Medicaid and CHIP combined to cover approximately 70% of the children in Utah who were eligible to receive health care through those programs.
- Eligibility for Medicaid and CHIP is based largely on family income, as a percentage of the federal poverty level. However, other factors are involved, such as disability (Medicaid), or recent private plan coverage (CHIP). Children born outside the U.S. who have not lived in the U.S. for at least five years are not eligible for Medicaid or CHIP, regardless of their family's income.
- Only children with no other health plan coverage are eligible to receive CHIP services.

Cost as a Barrier to Health Care

Access to health care is still a problem for many Utahns. Individuals who cannot obtain needed health care tend to have higher rates of death and disability from chronic disease. Cost is the most commonly reported barrier to getting needed health care.



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

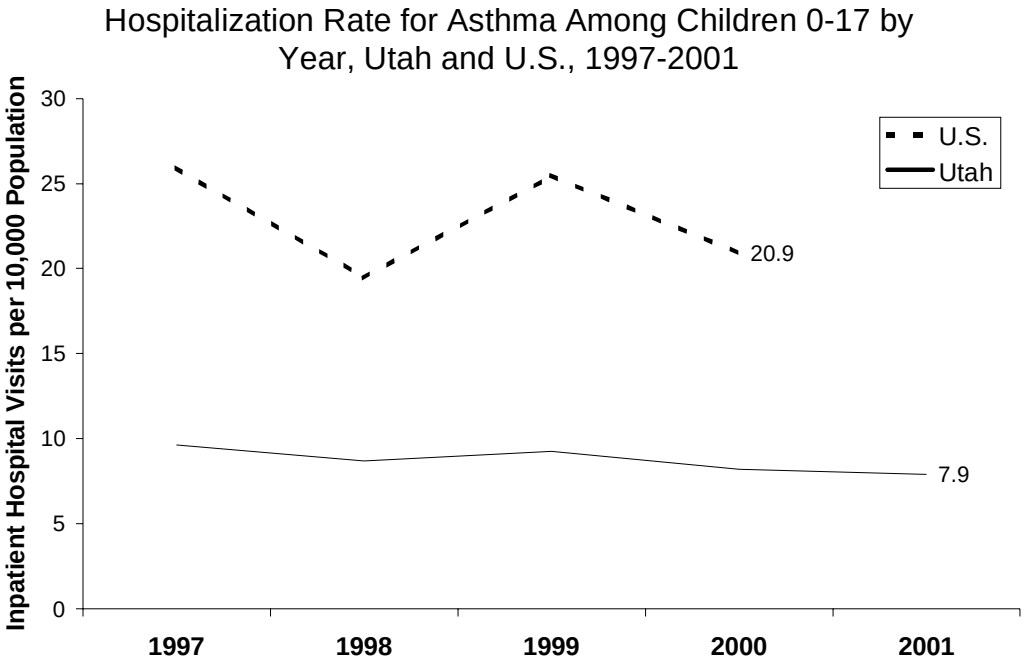
Note: Age-adjusted to U.S. 2000 standard population. *U.S. data are the average for all states and the District of Columbia but do not include the U.S. territories.

- In Utah, cost as a barrier to care was at its lowest in 1998, reported by only 8.8% of Utah adults. In 2000, it was reported by 10.2% of adults. The percentage of adults who reported they were unable to get needed health care in the past year due to cost has been similar in Utah and the U.S.
- Young adults, especially young adult males, are less likely than others to have health insurance coverage. Utahns with annual household incomes below $25,000 were far more likely to report cost as a barrier to health care compared to those with incomes $25,000 and above.
- Persons without access to health care tend to delay getting care until a problem becomes too painful or dangerous to avoid seeking medical care. At that point, health problems are often expensive to treat and sometimes have serious long-term implications for the individual's health.
- The Utah Department of Health administers programs to improve access to care, such as Medicaid, Children's Health Insurance Program (CHIP), the newly established Primary Care Network (PCN), primary care grants, and clinics for children with disabilities. Local health departments provide preventive services such as immunizations and screenings at low or no cost to eligible persons who cannot afford them.

Ambulatory Care Sensitive Conditions: Asthma Hospitalization Among Children

Ambulatory care sensitive (ACS) conditions are conditions for which hospitalization conditions can be prevented when they are effectively managed in outpatient settings. High rates for ACS conditions indicate poor access to outpatient health care. Examining rates of hospitalization for these conditions can help to identify populations or areas where access to medical care is inadequate or where the systems for providing that care are not working. Asthma can usually be managed in outpatient settings, precluding the need for hospitalization.

Healthy People 2010 Objective 1-9a Goal: Hospitalization for ambulatory care sensitive conditions - Pediatric asthma (admissions per 10,000 population, ages under 18 years) (17.3). (See Appendix)



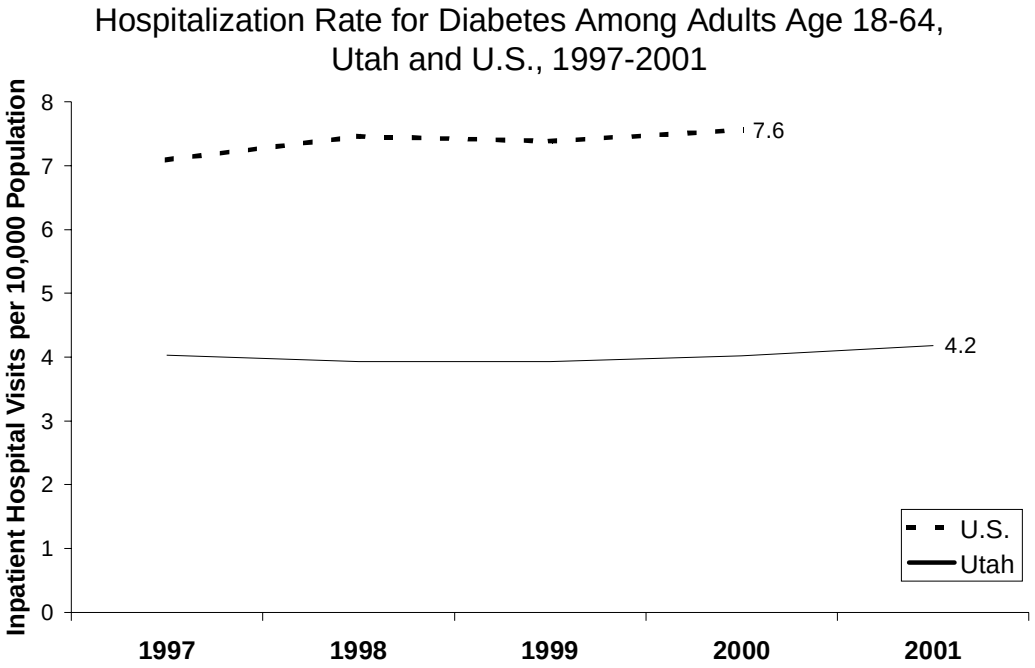
Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health
Note: ICD-9 code 493

- In 2001, the total number of hospital discharges for asthma in Utah was 1,326 (0-17 years: 578). The rate of asthma discharges in Utah was 5.78 per 10,000 persons in 2000 (0-17 years: 7.91/10,000).
- Utah had lower hospitalization rates among children (0-17 years) than was found in the U.S. between 1997 and 2000.
- Income, age, and education are important population characteristics related to hospitalization for ACS conditions. Poor air quality and cigarette smoking are risk factors for asthma.
- The Utah Asthma Program is located at the Utah Department of Health in the Bureau of Health Promotion. It began in January 2002 with the intent to:
    1) create an infrastructure to address asthma from a public health perspective;
    2) create a public health assessment and monitoring system for asthma;
    3) build partnerships and improve partner capacity; and
    4) develop population-based strategies to improve asthma care and management.

Ambulatory Care Sensitive Conditions: Diabetes Hospitalization Among Adults

Ambulatory care sensitive (ACS) conditions are conditions that are sensitive to outpatient care. Uncontrolled diabetes includes two major acute complications of diabetes, ketoacidosis and hyperosmolar coma. Diabetic ketoacidosis is one of the most preventable complications of diabetes and is usually caused by having too little insulin in the blood. This condition is usually limited to people who use insulin to manage their diabetes (type 1 diabetes). Hyperosmolar coma occurs in people with type 2 diabetes when blood sugar levels skyrocket. Both ketoacidosis and hyperosmolar coma are medical emergencies that can be life-threatening without prompt medical attention.

Healthy People 2010 Objective 1-9b Goal: Hospitalization for ambulatory care sensitive conditions - Uncontrolled diabetes (admissions per 10,000 population, ages 18 to 64 years) (5.4). (See Appendix)



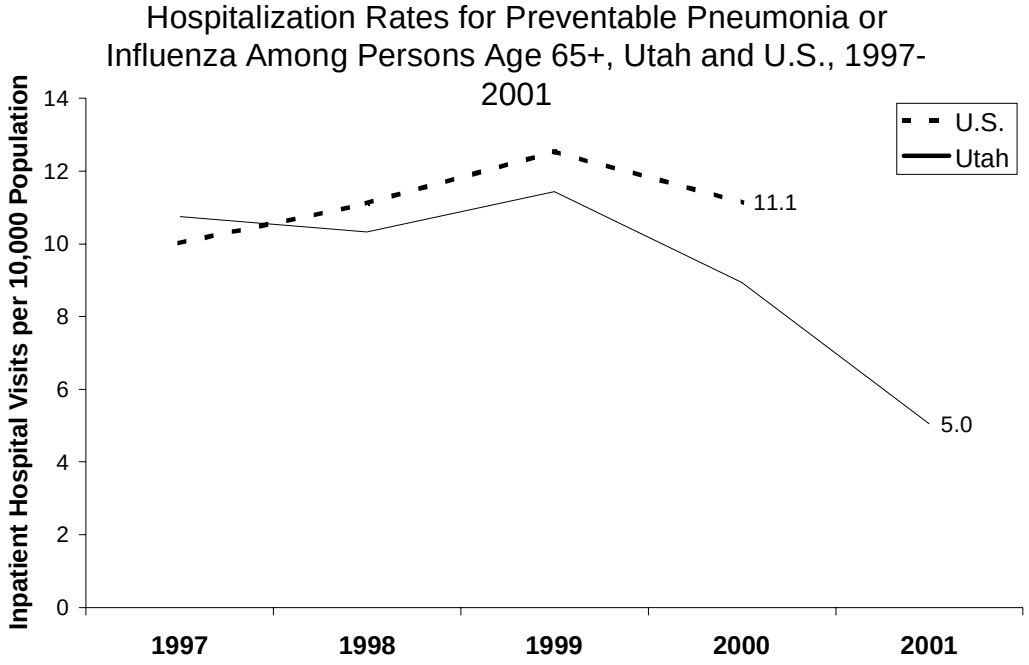
Sources: U.S. Bureau of the Census; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health
Note: ICD-9 codes used for diabetes ACS are: 250.02-250.03, 250.10-250.13, 250.20-250.23, 250.30-250.33.

- In 2001, there were 1,140 hospital discharges for Utah residents aged 18 to 64 listing diabetes as the primary diagnosis. Over half of these hospitalizations (573 discharges) were for uncontrolled diabetes and could have potentially been avoided.
- Rates of hospitalization for diabetes-related ACS conditions have been increasing in recent years, rising from 2.7 discharges per 10,000 Utahns age 18 to 64, in 1992, to 4.2 in 2001.
- Rates of hospitalization for diabetes-related ACS conditions in Utah have consistently been well below those for the U.S. In 2000, the U.S. rate was 7.6 per 10,000 population, compared to 4.0 for Utah.
- The Utah Diabetes Prevention and Control Program recognizes the importance of diabetes education and its role in preventing both acute, as well as long-term, complications of diabetes. The Diabetes Prevention and Control Program currently has certified 15 state diabetes education programs throughout Utah.

Ambulatory Care Sensitive Conditions: Pneumonia and Influenza Hospitalization Among the Elderly

Both pneumonia and influenza can largely be prevented through immunization. Examining rates of hospitalization for pneumonia and influenza can help to identify populations or areas where access to medical care is inadequate or where the systems for providing that care are not working.

Healthy People 2010 Objective 1-9c Goal: Hospitalization for ambulatory care sensitive conditions - Immunization-preventable pneumonia or influenza (admissions per 10,000 population, ages 65 years and older) (8). (See Appendix)

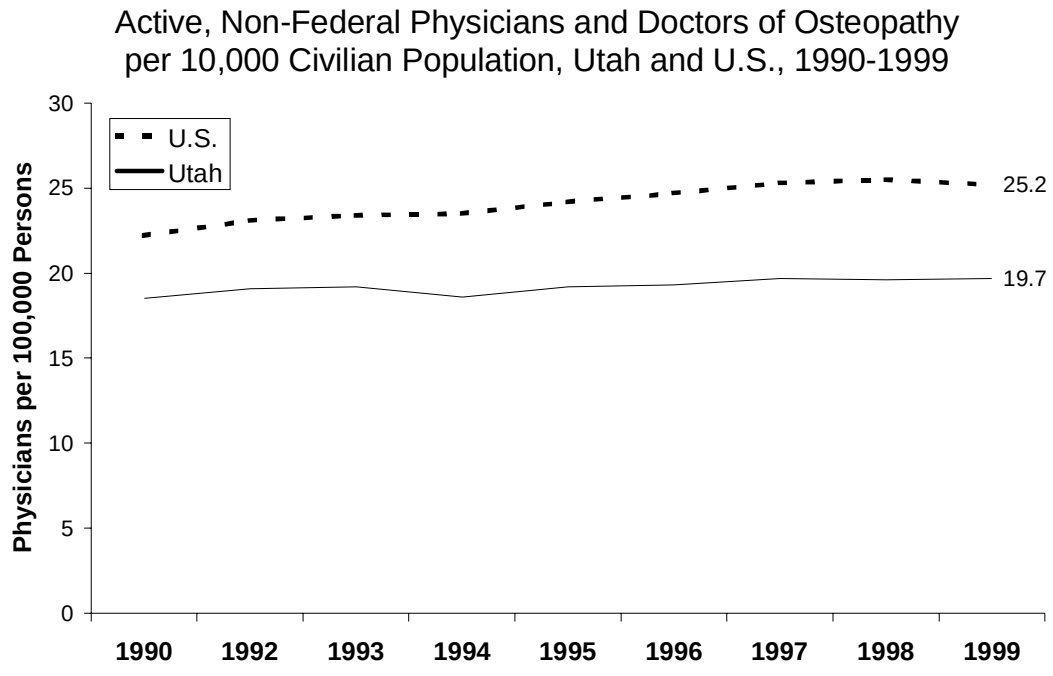


Sources: Healthcare Cost and Utilization Project (HCUP), AHRQ; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health
Note: ICD-9 codes 481 or 487.

- The number of bacterial pneumonia and influenza discharges among persons aged 65+ in Utah in 2001 was 2,923. Ninety-eight of those (5.0 per 10,000 persons age 65+) were preventable hospitalizations among persons aged 65+.
- Income, age, and education are important population characteristics related to hospitalization for ACS conditions.
- People who lack health insurance coverage are likely to lack access to quality outpatient care, and in turn, are likely to be admitted as inpatients when ACS conditions are worsened. For patients at higher risk, two vaccinations can help prevent pneumonia and influenza. Pneumococcal vaccine is recommended for all immunocompetent individuals age 65 and over and for selected others at high risk. Influenza vaccine is recommended annually for all persons age 50 and older and for persons age six months and older with selected conditions placing them at high risk. A pneumococcal conjugate vaccine is recommended for children.

Physicians per 10,000 Population

The ratio of physicians to persons in a population is an indication of the capacity of the health system and the access to care for persons in that population.

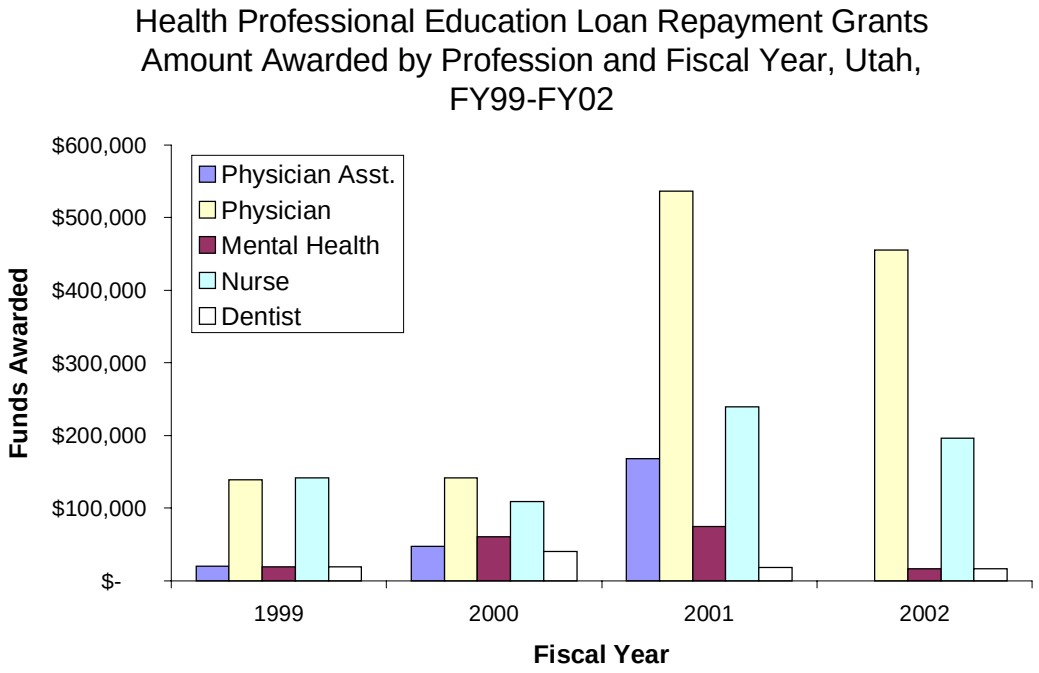


Source: National Center for Health Statistics

- The physician supply has more than kept up with growth in the population; however, access is also influenced by the availability of doctors by specialty area and by geographic area.
- The optimal ratio of physicians to population depends on many factors, including population density and the health status and health care utilization patterns of the population. Utah predicts that about 1,100 physicians will retire in the next ten years, which may cause shortages in provision of specialty care.
- Results of the Utah Pregnancy Risk Assessment and Monitoring System (PRAMS) suggest that some women do not get early prenatal care because of the unavailability of timely appointments with obstetrician-gynecologists in their area.
- The Utah Health Care Work Force Financial Assistance Program has successfully assisted in retaining health care professionals serving Utah's rural and underserved populations through providing educational loan repayment. The Utah Medical Education Council continues to complete a survey of Utah health care professionals entitled "Utah's Clinical Healthcare Workforce: Achieving Balance Through 2020" (December 2000). The results of this survey are available at: http://www.medicaled.state.ut.us/.
- Recent dramatic increases in malpractice premiums, especially for certain specialties, is raising concerns about imminent shortages in critical services such as obstetrics and trauma surgery.

UDOH Support for Health Professional Education (Grants Program)

The Utah Health Care Work Force Financial Assistance Program was created to provide professional education scholarships and loan repayment assistance to health care professionals who locate or continue to practice in underserved areas of Utah. The purpose of the Utah Health Care Work Force Financial Assistance Program is to increase and maintain the number of health care professionals practicing in rural and underserved areas of Utah.



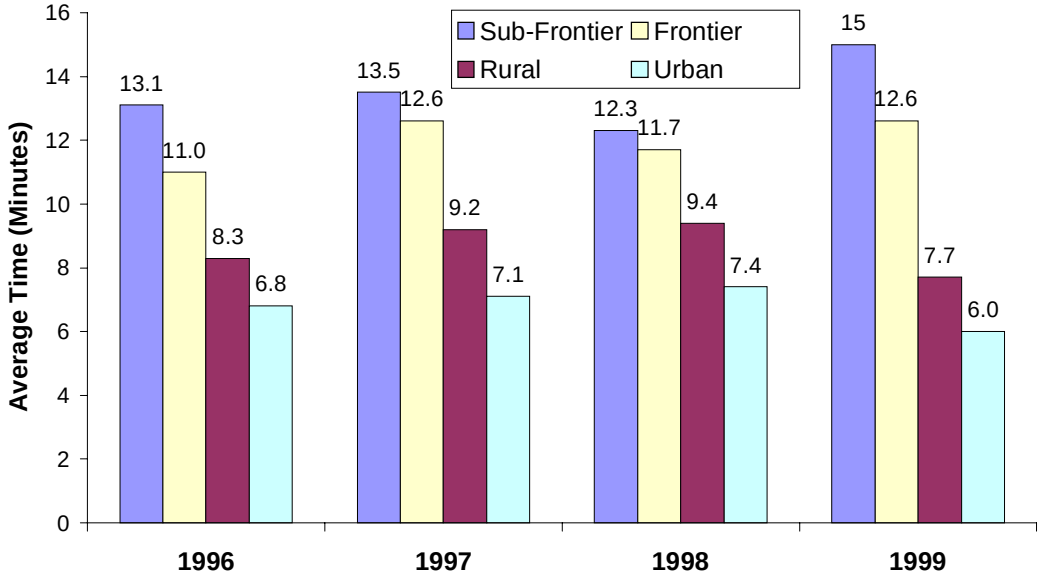
Source: Office of Primary Care and Rural Health, Utah Department of Health

- The Division of Health Systems Improvement supports the Utah Health Care Work Force Financial Assistance Program. The program is funded with non-lapsing state general funds. The Utah Health Care Work Force Financial Assistance Program supports activities of two federally funded programs (National Health Services Corps State Loan Repayment Program and the Primary Care Office Conrad State 30 J-1 Visa Waiver Program).
- Since 1990, health professionals recruited to work in medically underserved areas of Utah through the state funded Utah Health Care Work Force Financial Assistance Program cover 23 of Utah's 29 counties, and include: 5 dentists, 10 mental health therapists, 168 nurses, 69 physicians, and 20 physician assistants.
- Due to reductions in funding during FY 02-03, the number of practitioners assisted through this state funded program may annually decrease.
- The Utah Health Care Work Force Financial Assistance Program also assisted in the activities associated with the federally funded programs.

EMS Response Time

Timely emergency services response can save lives of patients with life-threatening conditions such as severe injury and acute myocardial infarction (heart attack). The time from dispatch to arrival on the scene is an important measure of the capacity of the state Emergency Medical System to respond to calls for assistance.

Time (Avg. Minutes) From Dispatch of EMS to Arrival at Scene by County Type, Utah, 1996-1999



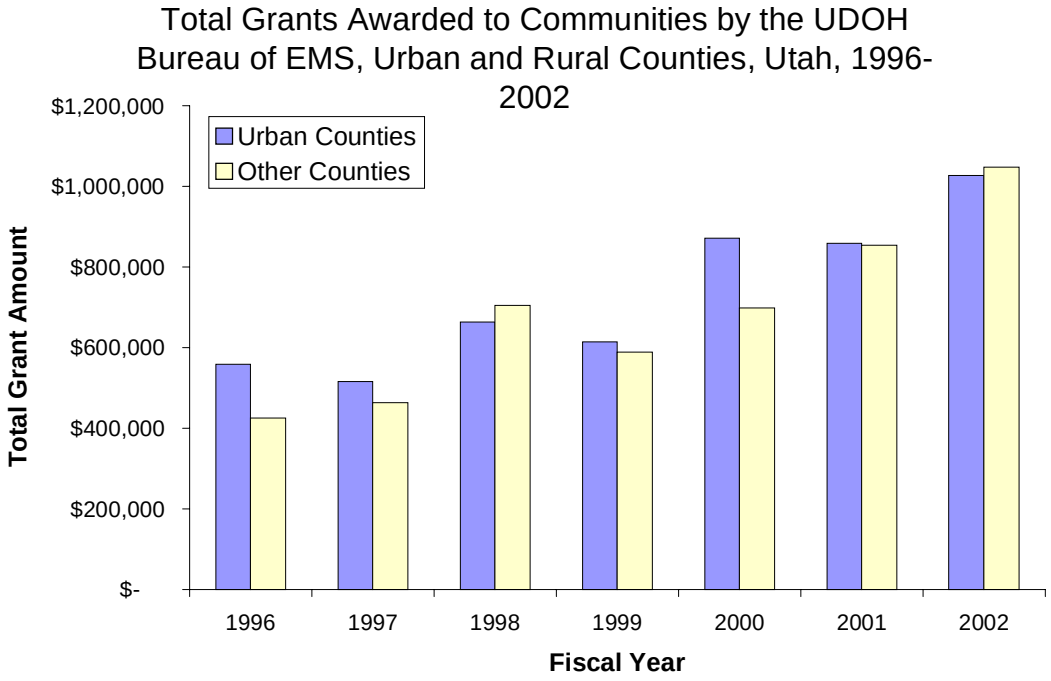
Source: Utah Emergency Department Encounter Data, Bureau of Emergency Medical Services, Utah Department of Health

Note: Sub-Frontier: <2 persons/sq mile; Frontier: >2 and <6 persons/sq mile; Rural: >6 and <100 persons/sq mile; Urban: >100 persons/sq mile.

- In Utah, in 1999, the EMS response time ranged from 6 minutes in urban counties to 15 minutes in sub-frontier counties. The average EMS response time in rural counties and frontier counties was 7.7 minutes and 12.6 minutes, respectively.
- The UDOH Bureau of Emergency Medical Services monitors EMS response time and develops programs to improve delivery of EMS services throughout Utah, especially in non-urban areas.

UDOH Support for Local Emergency Medical Services

Provision of high quality emergency medical care requires that standards for equipment, training of personnel, and medical care be maintained and followed. Local communities lack the revenue base required to fully support necessary activities. State support for local EMS improves statewide access to prompt emergency medical services.



Source: Utah Emergency Department Encounter Data, Bureau of Emergency Medical Services, Utah Department of Health
Note: Urban Counties include Salt Lake, Davis, Weber, and Utah Counties.

- During FY2002, there were close to 150,000 EMS responses to emergency calls. It is not uncommon for a call to generate more than one response (e.g., a Fire Department Emergency Medical Technician and an ambulance). Out of 121 licensed emergency medical service providers throughout Utah, only about half were staffed around-the-clock, "24/7." In Utah's rural and frontier areas, emergency medical staff are often "on call" -- EMS is not their primary vocation.
- Costs of life-saving medical equipment is higher than many local communities can support. Each year, over 150 local EMS agencies are assisted in securing operational and supplemental funding so they may provide adequate emergency medical services within their communities.
- A surcharge of criminal fines and forfeitures in Utah helps to provide funding for maintenance of high quality emergency medical services.

Laboratory Capacity

Utah's laboratory system consists of a state laboratory and a network of independent labs throughout the state. The laboratory system has the following capacities, as indicated by the "Yes" or "No" in the text below.

HEALTHY PEOPLE 2010 OBJECTIVE 23-13 GOAL: ACCESS TO PUBLIC HEALTH LABORATORY SERVICES (DATA NOT COLLECTED). (SEE APPENDIX)

Reportable Diseases— Capacity to rapidly identify pathogens causing reportable diseases. Reportable diseases are those that are considered threats to public health because they are both serious and easily spread.

Tuberculosis in 3 days: Yes
Salmonella in 24 hours: Yes
HIV in 24 hours: Yes
Chlamydia in 24 hours: Yes
Influenza in 8 hours: Yes
Bio-Terrorism agents: 2 hours for preliminary screening*: Yes

* The state laboratory has increased its capacity since the 9/11 attacks and anthrax exposures. The UDOH is part of CDC's Laboratory Reference Network, which gives us access to all the capabilities in that network.

State and Local Epidemiologic Investigations— Capacity to "type," or identify the exact disease-causing organism to support epidemiologic investigations at state and local level. Discovering the source of a particular disease requires the ability to identify the exact organism type. Identifications of the source is necessary to prevent further spread of the disease.

Salmonella: Yes
E. coli: Yes
Pertussis: Yes
TB: Yes
Meningococcus: Yes
Hemophilus species: Yes
Influenza: Yes

Medical Laboratory Reporting and Notification— Capacity to rapidly receive and share information with laboratories and infectious disease physicians.

Develop protocol - when to send "alarm": No
Labs report to UDOH/UDOH reports back to labs: No

Drug-Resistant Organisms— Capacity to identify selected drug-resistant organisms. Antibiotic resistance is becoming a global crisis. Antibiotics can no longer protect us against particular strains of common organisms. Saving infected persons, and prevention of further spread of these organisms requires early identification and treatment of persons with the infection.

TB: Yes
Enterococcus: Yes
Streptococcus: Yes
Meningococcus: Yes
Salmonella: Yes

Environmental Contaminants— Capacity to identify environmental contaminants associated with human diseases. Environmental contaminants are a source of human diseases and problems. Once identified, some of these contaminants are easily removed from the environment, others are more difficult.

PCB: Yes
Pesticides: Yes
Nitrates in drinking water: Yes
Radon: Yes
Giardia in drinking water: Yes
Cryptosporidium in drinking water: Yes
Lead: Yes
Chemical agents (neurotoxins): No*

* rapid tests are still being developed

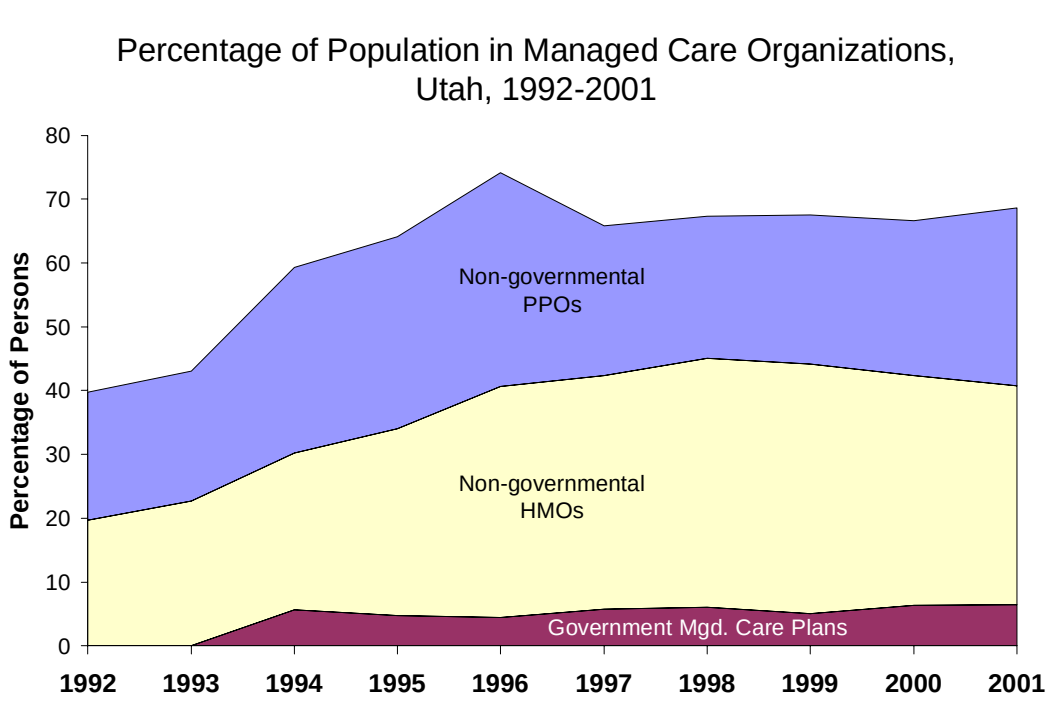
Medical Examiner's Office— Capacity to conduct investigations to support the Medical Examiner. The Medical Examiners Office conducts tests on violent or suspicious deaths in Utah. Drugs or alcohol are often involved in violent deaths.

Drugs: Yes
Alcohol: Yes

- Federal Bio-Terrorism dollars are enhancing the national network of public health laboratories. Rapid reporting of laboratory results is important to get "early warning" of conditions that are being diagnosed by physicians.

Managed Care Enrollment

Managed care has emerged over the past several years as a way to hold down medical costs that were increasing at rates much higher than inflation. Managed care attempts to balance the needs of patients with the need to hold down medical costs.



Source: Utah Hospitals and Health Systems Association

Note: Governmental managed care plan enrollment was not estimated for 1992 and 1993.

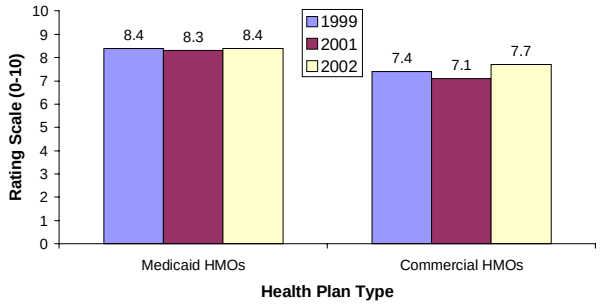
- The proportion of Utahns whose health insurance coverage is provided through managed care organizations increased from 43% in 1993 to over 60%, but remained fairly level from 1997 to 2001. In 2001, 34% were insured by a commercial health maintenance organization (HMO) and 28% by a preferred provider organization (PPO). An additional 6.5% were covered by a governmentally funded managed care organization (e.g. Medicaid, CHIP, PEHP).
- Care for persons in PPOs is not as rigidly managed as care for persons in HMOs, but PPO premiums are generally more expensive. HMOs are evolving and the distinctions between PPO and HMO are blurring. HMOs may include traditional “closed panel” plans or more flexible “point-of-service” options, where enrollees may seek care outside of the network for a higher co-payment.

Managed Care Survey

Health Maintenance Organizations (HMOs) emerged out of the managed care movement beginning in the U.S. in the 1970s. HMOs attempt to balance the needs of patients with the need to hold down medical costs. Some consumer groups raised concerns that managed care plans overemphasized cost-cutting at the expense of patient care and customer service. The National Committee for Quality Assurance (NCQA) sought to address this concern by assisting employers in making informed decisions in the health insurance marketplace.

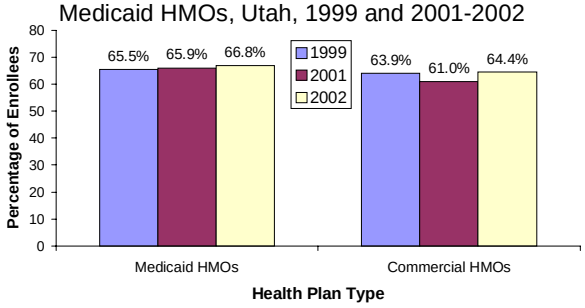
The HMO survey is a part of NCQA's Health plan Employer Data and Information Set (HEDIS) to provide results of standardized performance measures to employers purchasing health plans for their employees.

Average Rating of Health Plan by Enrollees in Commercial and Medicaid HMOs, Utah, 1999 and 2001-2002



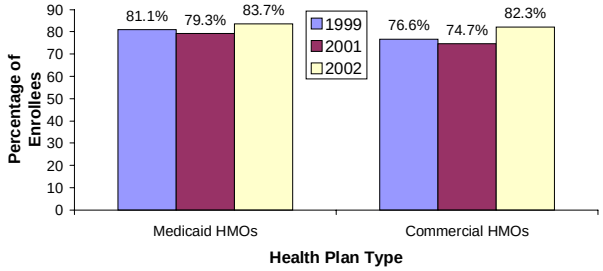
Source: Consumer Assessment of Health Plans Survey, Office of Health Care Statistics, UDOH

Percentage of Enrollees Who Reported That Their Customer Service Experience Was Not a Problem by Enrollees in Commercial and Medicaid HMOs, Utah, 1999 and 2001-2002



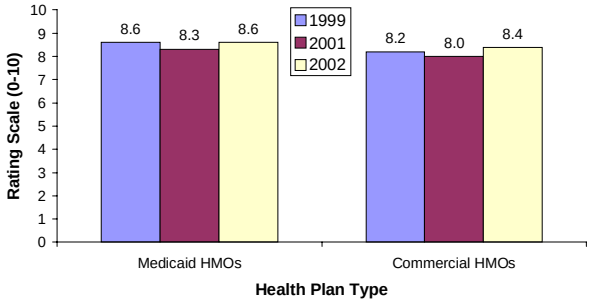
Source: Consumer Assessment of Health Plans Survey, Office of Health Care Statistics, UDOH

Percentage of Enrollees Who Reported That Getting Needed Care Was Not a Problem by Enrollees in Commercial and Medicaid HMOs, Utah, 1999 and 2001-2002



Source: Consumer Assessment of Health Plans Survey, Office of Health Care Statistics, UDOH

Average Rating of Quality of Care by Enrollees in Commercial and Medicaid HMOs, Utah, 1999 and 2001-2002



Source: Consumer Assessment of Health Plans Survey, Office of Health Care Statistics, UDOH

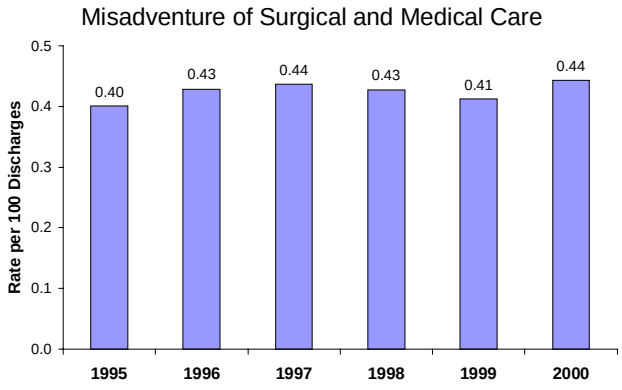
Note: Each individual's ratings on health plan were averaged within Medicaid and Commercial HMO groups to derive the rating scores presented here.; 1999 and 2001 surveys were for adult members of Utah HMOs, while the 2002 survey was for Utah HMOs child members.

- This survey attempts to measure satisfaction levels of health plan members. The Utah HMO survey is administered annually by the UDOH Office of Health Care Statistics.
- Overall satisfaction is slightly higher for persons in Medicaid HMOs, compared to those in commercial plans. Areas that need improvement include customer satisfaction and doctors' communication with patients.
- The UDOH Office of Health Care Statistics produces and releases "Utah HMO Performance Report" every year with updated HMO survey results and other HEDIS measures. These can be viewed and downloaded at http://health.utah.gov/hda/consumerreports.htm.

Adverse Events Related to Hospital Inpatient Care

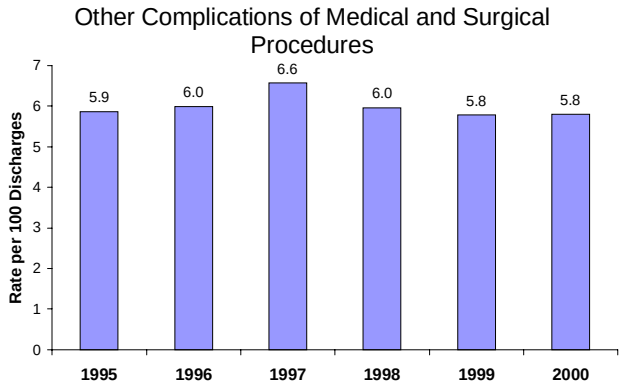
Medical injuries are a recently identified public health problem that can impose serioud consequences on individuals and their families including lost life, disability, and economic burdens. Proper reporting and data collection and analysis are critical first steps to effective prevention. With the development and/or improvement of patient safety programs and medical-injury tracking systems in Utah hospitals, an improvement in reporting of such injuries in the hospital discharge abstracts is hoped-for, and expected over the next three years.

Rate of Possible Adverse Events per 100 Hospital Discharges in Acute Care Hospitals, Utah, 1995-2000



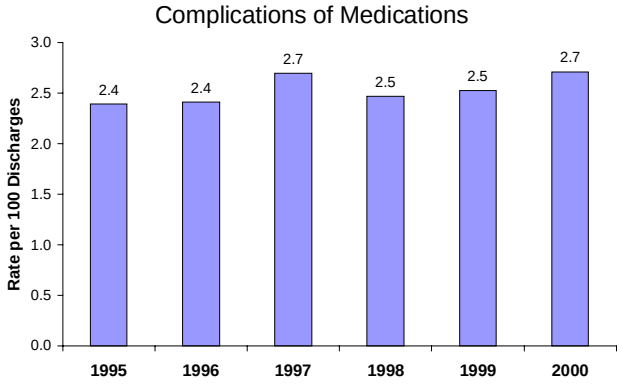
Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, UDOH

Note: ICD-9 codes: E870-876, 998.2, .4, .7



Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, UDOH

Note: ICD-9 codes: E878, E879, 996.0-996.7, 997.0-997.5, 997.9, 998.0, .1, .3, .5, .6, .8, .9, 999



Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, UDOH

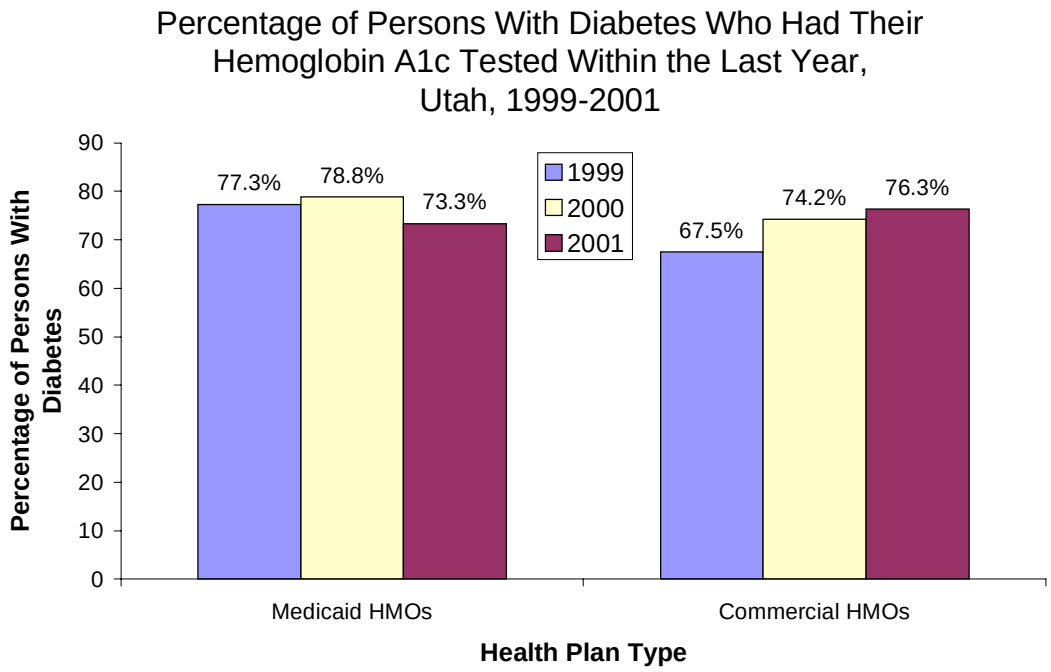
Note: ICD-9 codes: E930-E949, E850-E858, except E850.1, E854.1, 960-979, except 965.01

- From 1995 to 2000 in Utah, about 1 in 250 hospital discharges (4,453 patients) had a "misadventure of surgical and medical care" or similar procedure complication. The overwhelming majority of these (92% or 4,117 discharges) comprised cuts, punctures, or perforations during medical care. A total of 62,000 (6% of all discharges) involved other complications of medical and surgical procedures. An additional 26,000 (2.6%) were complicated due to medications.
- Among nearly 450,000 inpatient hospital and outpatient surgical center discharges, 34 sentinel events were reported during the one-year reporting period, including deaths, loss of mental or physical function, and wrong-site or wrong-patient surgeries. In the same period, 3.2 percent of inpatients experienced adverse drug events (ADEs). ADEs include drug allergies, adverse effects, interactions, and errors in administration. Not all ADEs are preventable.
- Two new administrative rules (R380-200, Patient Safety Sentinel Event Reporting, and R380-210, Health Care Facility Patient Safety Program) went into effect in October 2001. These rules focus on reporting of sentinel events and adverse drug events (ADE), along with associated quality improvement efforts.

HEDIS Measures: HbA1c (Diabetes Care)

The Hemoglobin A1c (HbA1c) test measures the average level of blood glucose over a three-month period of time for persons with diabetes. Because blood glucose can fluctuate wildly and levels may be affected by illness or stress, the HbA1c test provides a much more accurate picture of a patient's blood glucose level than tests which measure levels at one point in time.

Healthy People 2010 Objective 5-12 Goal: Annual glycosylated hemoglobin measurement - Persons with diabetes - Mean data from 39 States (age-adjusted, ages 18 years and older) (50%). (See Appendix)

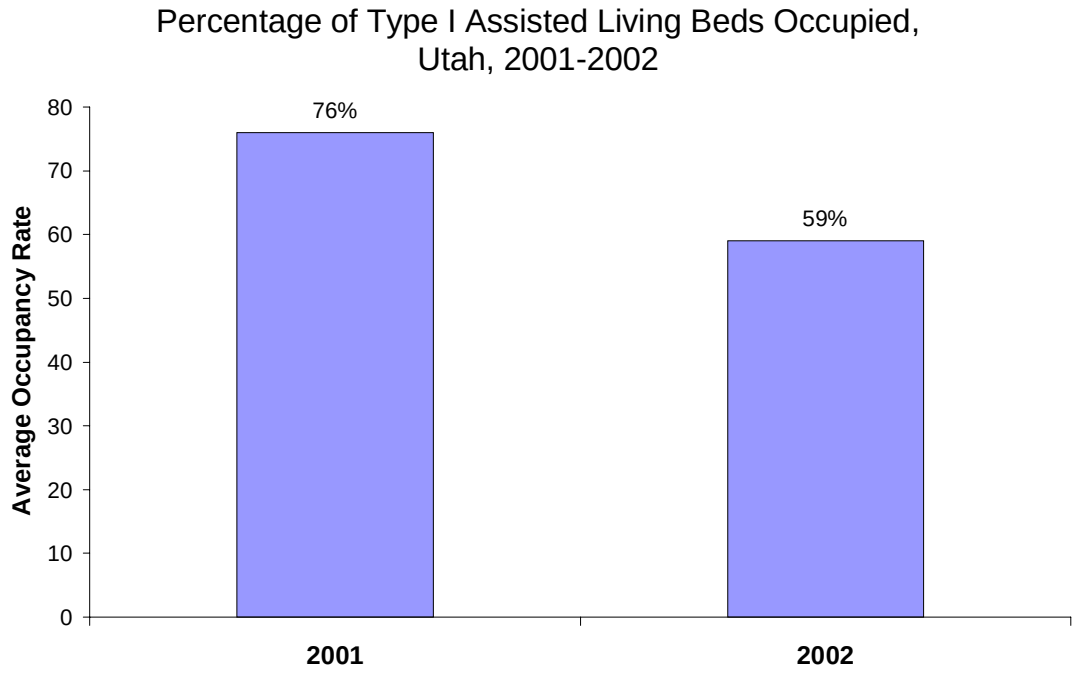


Source: Health Plan Employer Data Information Set (HEDIS), National Center for Quality Assurance (NCQA)

- Information from the American Association of Diabetes Educators (AADE) indicates that 75% of people with type 2 diabetes do not know their HbA1c levels. A similar survey conducted in 2000 by the National Quality Control Association found that 75% of people with diabetes are not getting their HbA1c tested. The American Diabetes Association recommends an HbA1c exam about every three months.
- The cost of hospitalizations associated with diabetes has been increasing in recent years. In 1998, $189 million were spent on 17,588 diabetes-related hospitalizations. In 2000, about $211 million were spent to cover 18,022 hospitalizations related to diabetes.
- The Utah Diabetes Control Program (UDCP) seeks to increase the proportion of people with diabetes who obtain this exam. The UDCP conducts a statewide media campaign to educate Utahns with diabetes about the importance of diabetes control which includes having regular HbA1c tests. The UDCP also strives to encourage health care providers, especially those in family practice or general practice, to offer this exam to their patients with diabetes at least twice a year. In addition, the UDCP works with seven Utah health plans to promote health care quality improvement. Incentives are offered for people with diabetes who obtain HbA1c exams.

Assisted Living Occupancy Rate: Type I

The U.S. Census Bureau estimated that in 2000 Utah had 190,222 persons 65 years of age or older. By 2020, this figure will have increased 75%, to an estimated 334,000. Occupancy rate is used as a performance indicator for nursing homes and assisted living facilities.[5] An occupancy rate that is near 100% indicates lack of capacity, which can lead to delays in hospital discharge[6] as well as other problems. However, low occupancy rates indicate a high supply, with a potential for poor patient care in new facilities that are not yet fully staffed, and in facilities suffering from insufficient revenues.



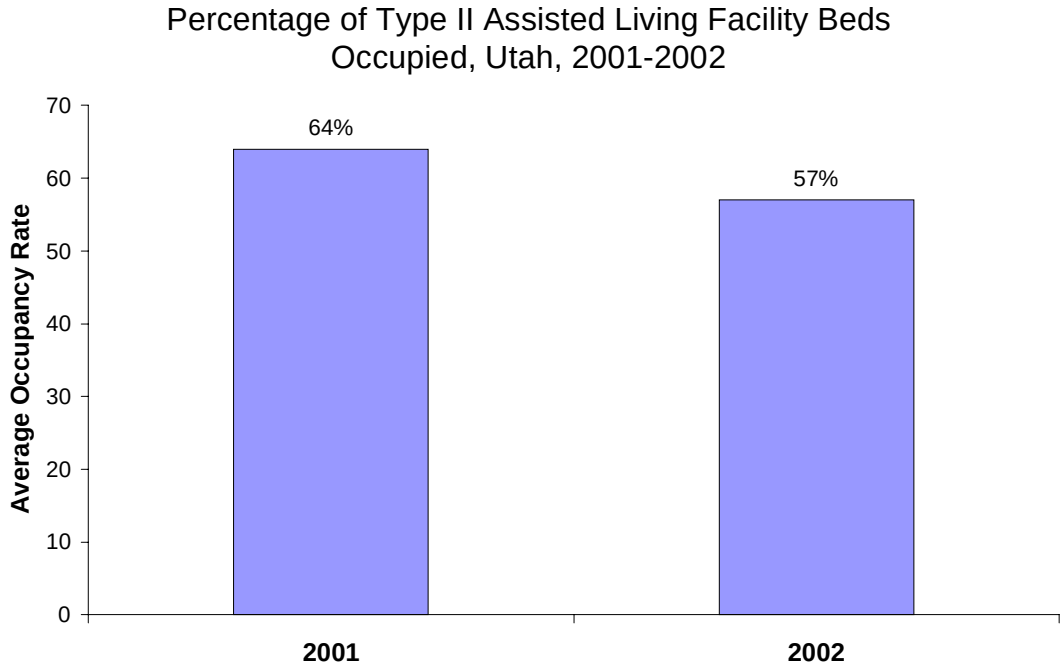
Source: Bureau of Program Certification and Resident Assessment, Division of Health Systems Improvement, UDOH

Note: Data reported are for August of each year.

- Assisted living Type I and II and nursing facilities differ in the amount of assistance provided to each resident. All provide 24-hour care, 3 meals a day, general monitoring, and assistance with administration of medications. Assisted living Type I facilities are appropriate for residents who have stable health conditions and need minimal assistance with ADLs (significant assistance with up to two ADLs).
- Assisted living facilities are becoming an increasingly popular setting for providing long-term care through a combination of housing, personal support services, and health care. Consumer demand is expected to grow significantly.
- Assisted living care is taking on a variety of new looks, including home health care, and provision of supportive services to elderly persons in small residential facilities.
- Lists of licensed assisted living facilities are provided on the UDOH website, at: http://health.utah.gov/licensing/AL1.htm.

Assisted Living Occupancy Rate: Type II

Occupancy rate is used as a performance indicator for nursing homes and assisted living facilities.[5] An occupancy rate that is near 100% indicates lack of capacity, which can lead to delays in hospital discharge[6] as well as other problems. However, low occupancy rates indicate a high supply, with a potential for poor patient care in new facilities that are not yet fully staffed, and in facilities suffering from insufficient revenues. Assisted living Type II facilities provide full assistance with Activities of Daily Living, RN consultation, and a one-person assist for evacuating the facility in case of an emergency.



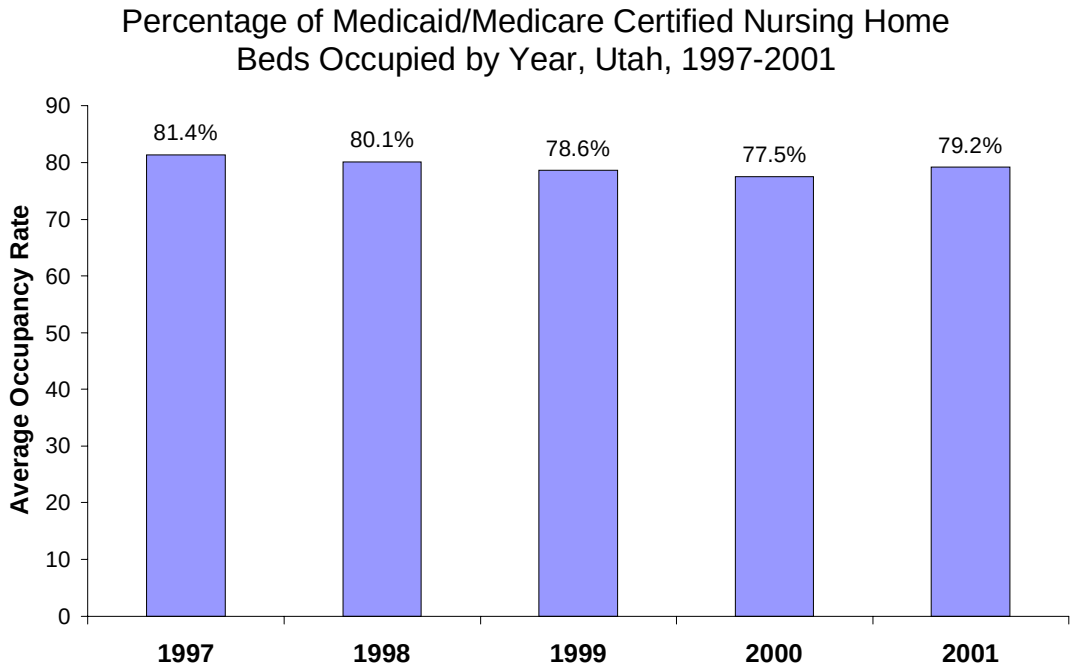
Source: Bureau of Program Certification and Resident Assessment, Division of Health Systems Improvement, UDOH

Note: Data reported are for August of each year.

- The Utah Department of Health has predicted that the current overall number of assisted living and nursing home beds will be adequate to meet demand through the year 2005. However, the long-term care supply will need to be improved in certain areas of the state where supply is low compared with demand.
- Lists of licensed assisted living Type II facilities are provided on the UDOH website, at: http://health.utah.gov/licensing/AL2.htm.

Nursing Home Occupancy Rate

Long-term care is an aspect of the health care system that is changing rapidly, with an increasing emphasis on the continuum of life care and development of creative alternatives to the traditional nursing home model. Occupancy rate is used as a performance indicator for nursing homes and assisted living facilities.[5] An occupancy rate that is near 100% indicates lack of capacity, which can lead to delays in hospital discharge[6] as well as other problems. However, low occupancy rates indicate a high supply, with a potential for poor patient care in new facilities that are not yet fully staffed, and in facilities suffering from insufficient revenues.

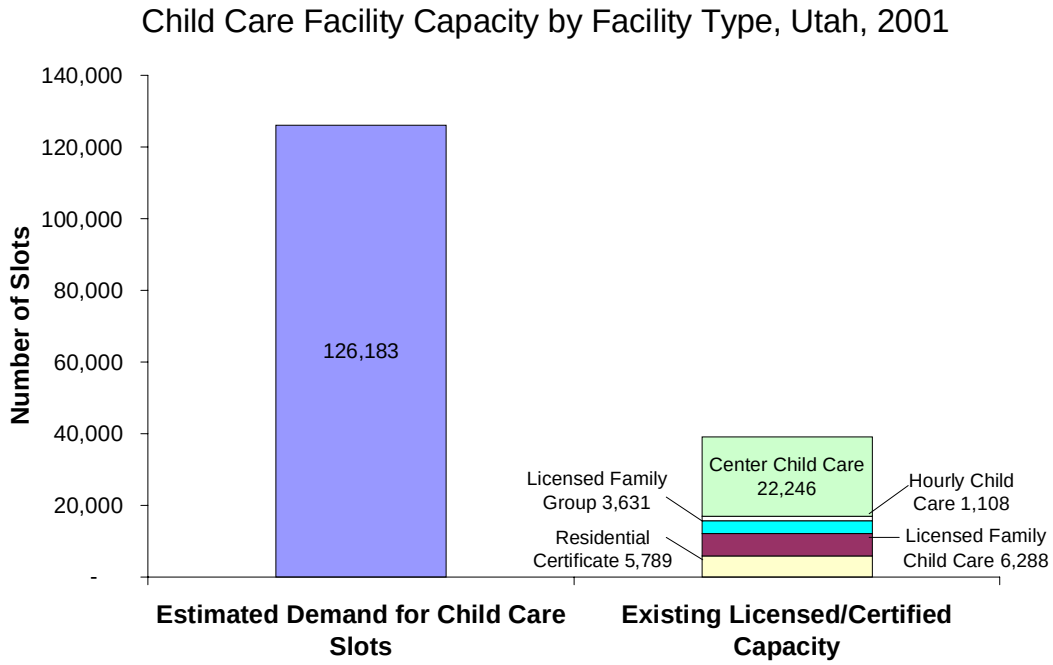


Source: Bureau of Program Certification and Resident Assessment, Division of Health Systems Improvement, UDOH

- Some rural areas in Utah have occupancy rates above 90% - an indication of demand outpacing supply. Some of these areas plan to build additional nursing home facilities, while others are using other alternatives, such as transitional care facilities and hospital "swing beds."
- In 1989, the Utah Department of Health declared an emergency moratorium on Medicaid certification of new nursing home bed certification. By discouraging additional nursing facility beds, the moratorium was designed to stabilize the nursing home industry and give the state an opportunity to develop alternative solutions for a better long-term care system.
- The data presented here reflect Medicaid-certified nursing home beds, only, and as such are just an indicator of the whole picture. More detailed information may be found in a recent report published by the UDOH, Office of Health Care Statistics, and may be found on the Internet at: http://health.utah.gov/hda/Reports/NHM02.pdf.
- Lists of nursing care facilities are provided on the UDOH website, at: http://health.utah.gov/licensing/NCF.htm.

Child Care: Numbers of Facilities and Capacity

With increasing demands on the family, parents look to quality child care to help them manage family and work. About 70% of working parents of children ages 0-12 have someone else look after their children while they are at work. Arrangements vary from licensed care to unlicensed and unreimbursed care. To be licensed, childcare providers must pass a background check and receive annual training.



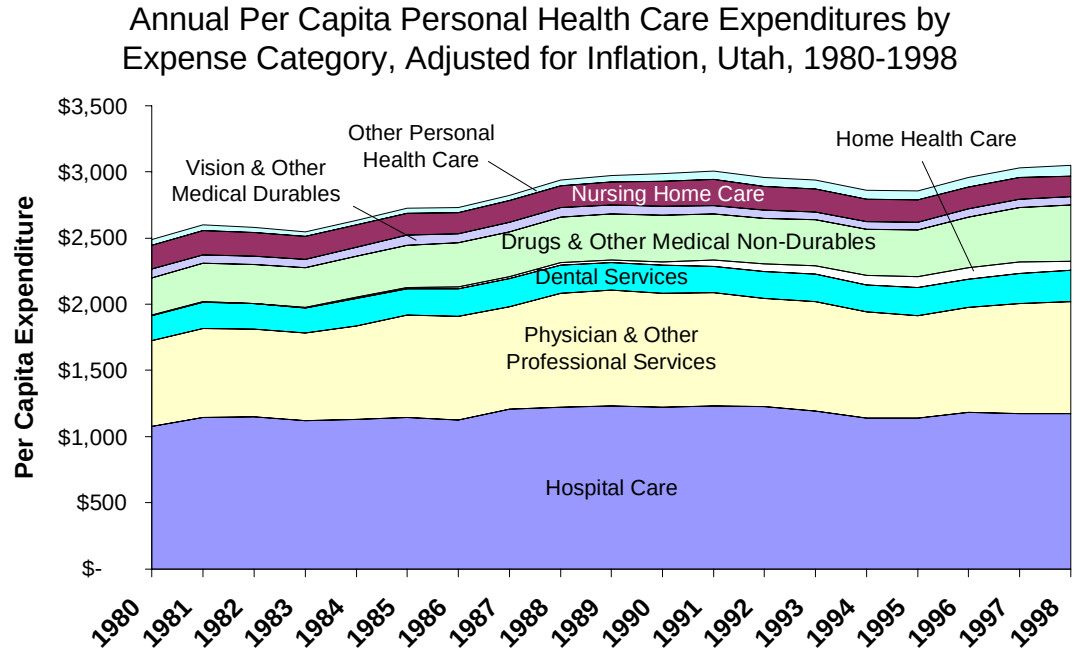
Source: Bureau of Licensing, Division of Health Systems Improvement, UDOH; U.S. Bureau of the Census

Note: Demand is estimated as the number of children age 5 or under for whom both parents or their only parent is in the labor force, reported by the U.S. Bureau of the Census, 2000.

- A small increase was noted in capacity in 2000; more providers are moving to a Residential Certificate (RC) category, which has fewer regulations. The Residential Certificate is the fastest growing category of child care. Fewer hours of eontinuing education are required for the residential certificate.
- Turnover continues to occur at 25% for in-home providers.
- To ensure quality care, Utah needs to increase the number of providers and capacity.
- The existing capacity listed here includes only licensed and certified child care slots. It is estimated that the number of unlicensed child care slots may equal or exceed the number of licensed slots.

Health Care Expenditures by Category

Cost is the primary barrier to health care for persons without health insurance, and is also the primary barrier to getting health care coverage among the uninsured. Personal health care costs have been increasing over the past several decades, and in 1998, they were equal to over 10% of Utah's gross state product. It is important to know what components comprise health care expenditures to understand where costs are incurred and so that increases in individual components may be evaluated.



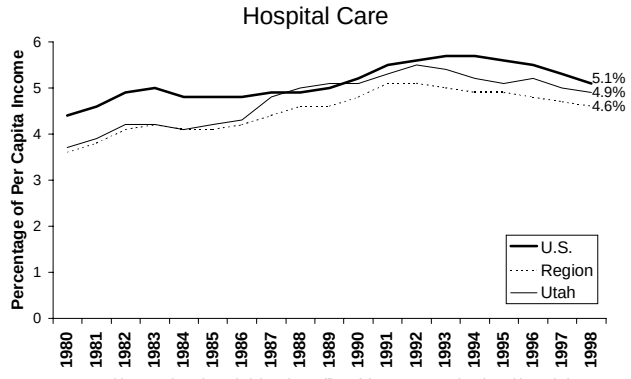
Sources: Consumer Price Index, U.S. Bureau of Labor Statistics; U.S. Health Care Financing Administration, Office of the Actuary, National Health Statistics Group

- The U.S. Health Care Financing Administration updates state-level medical cost estimates every few years, but has not done so since 1998.
- The largest annual per capita personal health care expenditure is hospital care, followed closely by physician and other professional services. These two categories account for 66% of all per capita personal health care expenditures.
- The numbers in the graph above have been adjusted for inflation. This was done using the U.S. Medical Care Consumer Price Index. The resulting numbers compare the rise in Utah's personal health care expenditures to the increase in the cost of medical care in the U.S. during the same period.
- The largest increase from 1980-1998 was found for home health care (26%) followed by prescription drugs (12%).

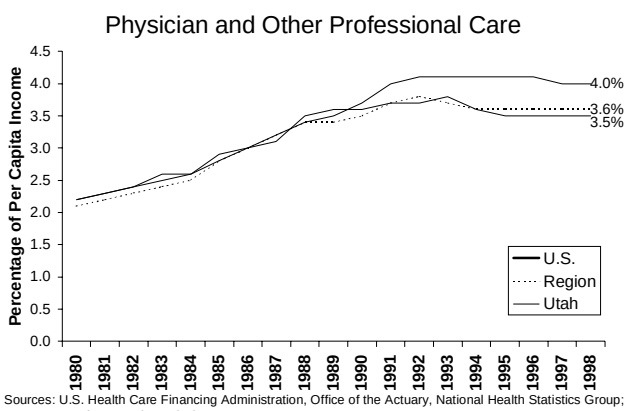
Health Care Spending

Health care expenditures in Utah have historically been lower and have grown more slowly than expenditures nationally. Favorable demographics (younger population) and healthier lifestyles contribute to these relatively low per capita health care expenditures. However, an aging and expanding population, medical technology advancements, and the limits of managed care to contain costs may cause per capita expenditures to rise.

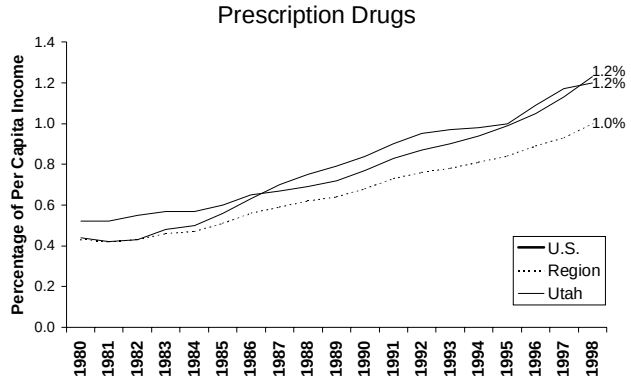
Per Capita Health Care Spending as a Percentage of Per Capita Income, Utah, Region, and U.S., 1990-1998



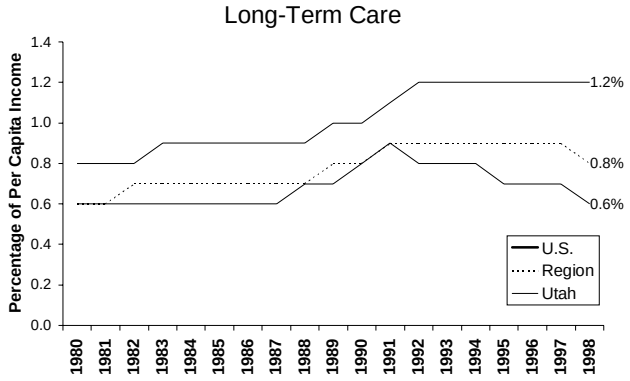
Sources: U.S. Health Care Financing Administration, Office of the Actuary, National Health Statistics Group; U.S. Bureau of Economic Analysis



Sources: U.S. Health Care Financing Administration, Office of the Actuary, National Health Statistics Group; U.S. Bureau of Economic Analysis



Sources: U.S. Health Care Financing Administration, Office of the Actuary, National Health Statistics Group; U.S. Bureau of Economic Analysis

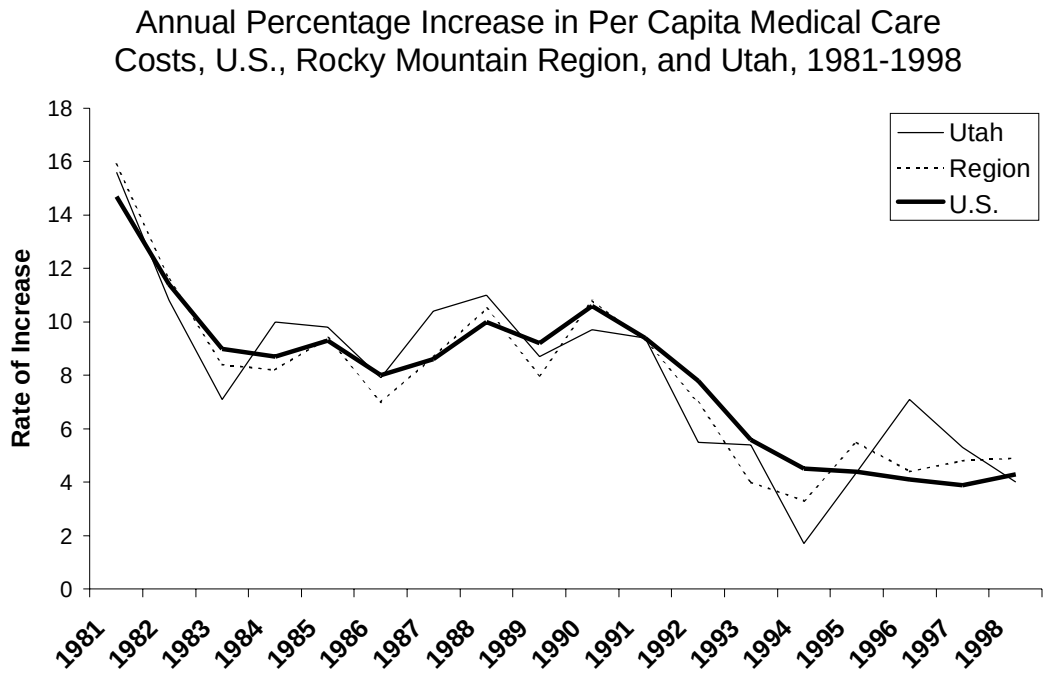


Sources: U.S. Health Care Financing Administration, Office of the Actuary, National Health Statistics Group; U.S. Bureau of Economic Analysis

- The U.S. Health Care Financing Administration updates state-level medical cost estimates every few years, but has not done so since 1998.
- Per capita expenditures for medical care in Utah has risen steadily over the last several years, but so have per capita incomes. As a percentage of per capita income, per capita expenditures for medical care leveled-off in the late nineties. The notable exception has been expenditures for prescription medicine.
- Managed care provided a temporary reprieve from double digit increases in total expenditures. This lower rate of increase is probably not sustainable and other data suggest increasing expenditures for health care services since 1998.

Health Care Costs Increase

The annual rate of increase in medical care costs is often compared to the U.S. Consumer Price Index to gauge whether increases in costs exceed the rate of inflation.

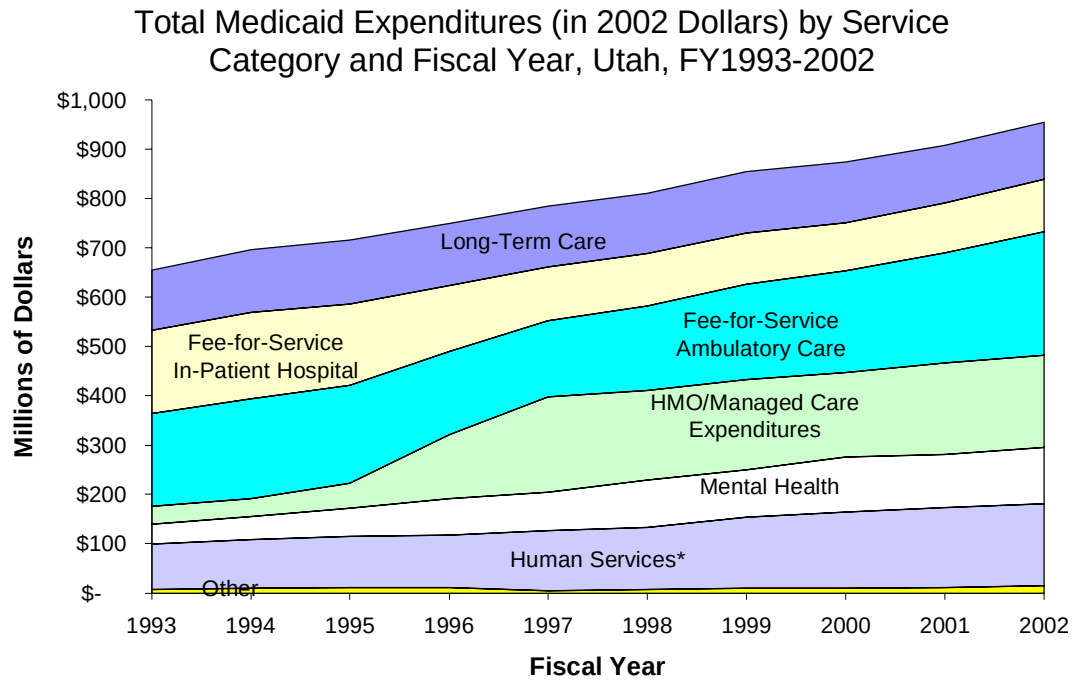


Source: U.S. Health Care Financing Administration, Office of the Actuary, National Health Statistics Group

- The U.S. Health Care Financing Administration updates state-level medical cost estimates every few years, but has not done so since 1998.
- Beginning in 1991, the rate of increase in Utah's per capita medical costs began to decline, but appears to have leveled-off in the mid-1990s.
- Although the *rate* of increase has dropped, per capita medical costs have increased annually throughout the period represented above.
- The rate of increase may be rising again, as more improved and expensive medical treatments become available.
- Utah's medical care cost increases are similar to those found in the U.S. and the Rocky Mountain region.

Medicaid Expenditures by Service Category

Medicaid medical assistance expenditures comprise just over 80% of the annual budget of the Utah Department of Health. As the Utah population grows, so does the number of Utahns receiving assistance from Medicaid. The increase in Medicaid enrollees combined with increases in the costs of providing health care cause the Medicaid medical assistance expenditures to rise over time.



Source: Division of Health Care Financing, Utah Department of Health

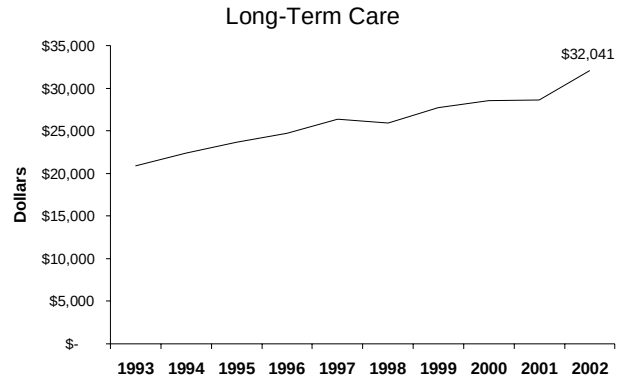
Note: Costs were inflation-adjusted to 2002 dollars using the U.S. Medical Care Consumer Price Index.
* Human services includes substance abuse treatment. Other includes substance abuse seeding and other seeding.

- Over the past several years, initiatives to increase services to Medicaid clients, such as cancer screening, healthy mothers and babies, well child care, dental care, and assistive medical devices, has contributed to increases in overall health care utilization and Medicaid expenditures. Rising health care costs overall are one factor causing Utah's Medicaid costs to increase. Shifts in the economy also influence the number of Utahns who are eligible to receive Medicaid-covered services.
- In the Fall of 2002, two HMOs decided that Medicaid reimbursement rates were too low. Some of the affected clients were taken up by other HMOs in the system, but most are now on a modified managed care arrangement.
- Because of Utah's relatively healthy population, we have lower per capita total health care expenditures than most states (regardless of payor), and lower per capita Medicaid expenditures than most states. Utah's per-capita Medicaid expenditures (dollars spent per state population) is second lowest in the U.S.
- A recent cost-neutral Medicaid waiver was approved, and the Primary Care Network (PCN) was implemented. The PCN serves adults age 19 to 64 whose incomes are at or below 150% of the poverty level. The PCN program covers only primary and preventive care.
- A large proportion of Utah's Medicaid expenditures go toward pregnant mothers, infants, and children in low-income households. Over one fourth of all births in Utah are paid by Utah's Medicaid program.

Medicaid Inflation

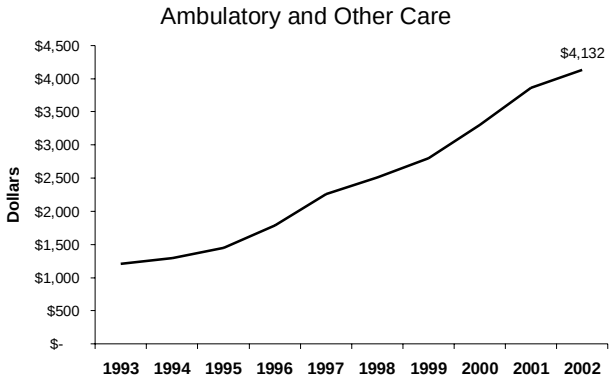
The Medicaid inflation rate is an indicator of overall health care inflation. Although Medicaid reimbursement amounts are predetermined, they are based on prior year payments for health care.

Annual Per Enrollee Medicaid Expenditures, Utah, 1993-2002



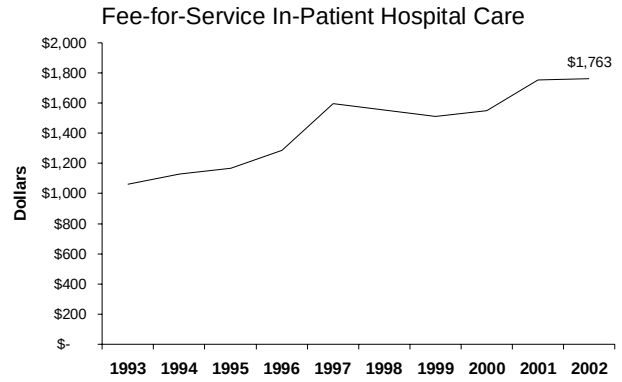
Division of Health Care Financing, Utah Department of Health

Note: Costs are in current dollars (not inflation-adjusted).; Per enrollee long-term care costs were computed using an average monthly count for the aged/disabled eligibility category only.



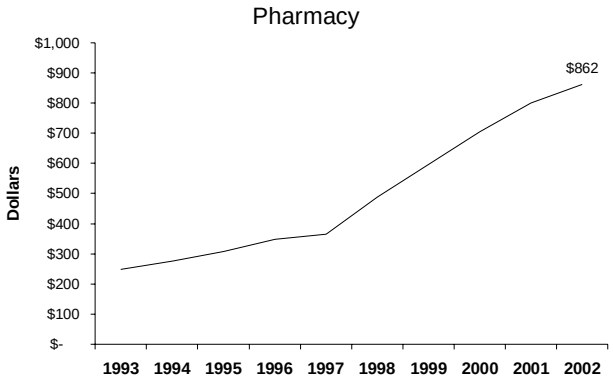
Division of Health Care Financing, Utah Department of Health

Note: Costs are in current dollars (not inflation-adjusted).; Per enrollee ambulatory care costs include ambulatory fee-for-service costs and were computed using an average monthly count of fee for service Medicaid eligibles.



Division of Health Care Financing, Utah Department of Health

Note: Costs are in current dollars (not inflation-adjusted).; Per enrollee inpatient hospital care costs include hospital fee-for-service costs and were computed using an average monthly count of fee-for-service Medicaid eligibles.



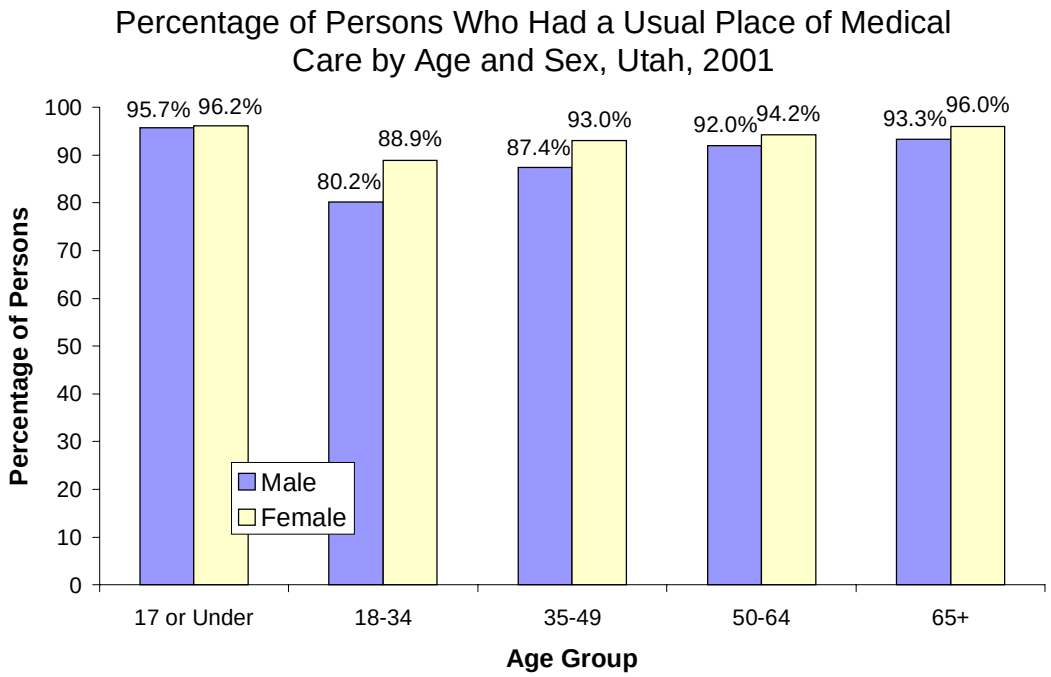
Division of Health Care Financing, Utah Department of Health

Note: Costs are in current dollars (not inflation-adjusted).; Per enrollee pharmacy costs were computed using an average monthly count of all Medicaid eligibles. Pharmacy expenditures are before manufacturer's rebates.

- The steepest increases were found for pharmacy coverage which increased at an average of 15.1% per year, from $248 per enrollee in FY1993 to $862 per enrollee in 2002.
- For fee-for-service enrollees, ambulatory care increased at an average annual 15% and inpatient hospital costs increased 6% per year, on average, over the time period.
- Long-term care shows the highest per enrollee costs. This is because long-term care is very expensive to provide. Its increases have averaged a moderate 5% per year.

Primary Provider - Usual Place of Care

A primary health care provider is typically an individual's first contact with the health care system. Ideally, a primary provider can effectively and efficiently manage a patient's medical care because they understand that person's medical history and social context. Having a regular source of health care is also an indicator of overall access to care.

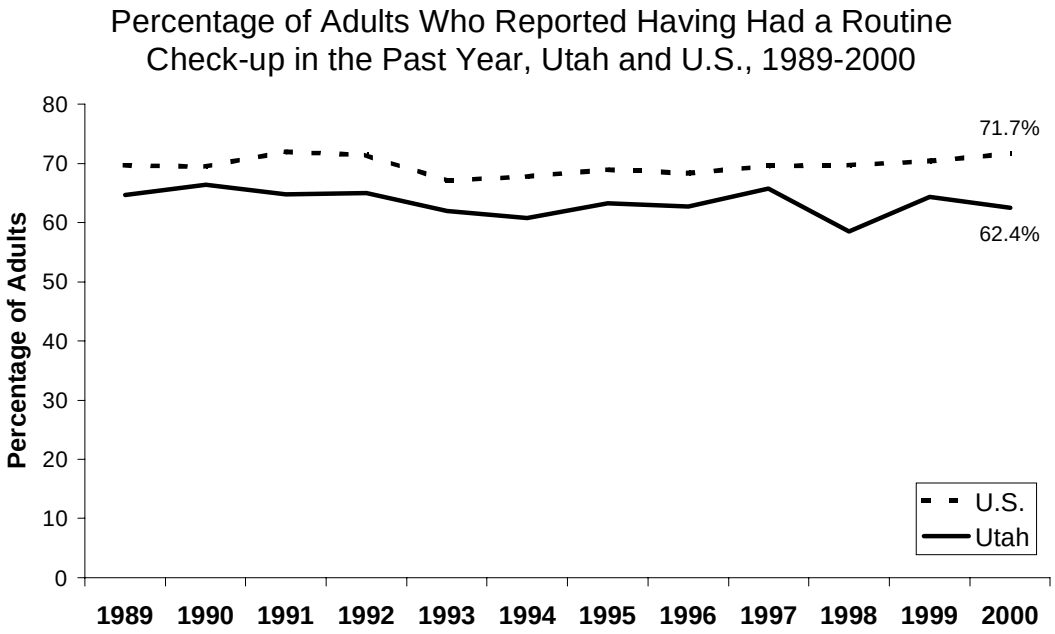


Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health

- In 2001, 91% of Utahns reported they had a place where they usually accessed health care. This is up from 82% in 1996.
- Lack of a primary provider or usual place for care was more common among young persons, especially men age 18 to 34 (only 80% had a usual place of care). Fewer people had a primary provider or usual place of care in Salt Lake Valley (89%), Summit County (89%), and Weber-Morgan (89%) Health Districts than in other areas of the state.
- Persons who have health insurance coverage are more likely to have a usual place of care. Additionally, those with a usual place of care are more likely to receive routine medical visits and health screening exams. By identifying diseases early, they can be more effectively treated, and disease and disability averted.
- Utah's population is highly concentrated in urban areas, leaving large regions of the state sparsely populated. In rural areas, Utahns often have to travel long distances to see a health care provider, and providers may not be available when they are needed.
- The Utah Department of Health has programs such as Medicaid, Children's Health Insurance Program (CHIP), and the Primary Care Network (PCN) to pay health care costs for low-income children and adults and those with disabilities. The Utah Department of Health also has a health professional education grants program to help ensure an adequate primary care workforce across the state.

Routine Medical Care Visits

Clinical preventive services are important for maintaining good health. Early detection and treatment of disease improves the chances of full recovery. Physician counseling can influence health behaviors and prevent disease entirely in many cases. It is especially important for persons in poor health to have a primary physician who understands their medical history and problems and can give them appropriate care that fits their medical and social context.



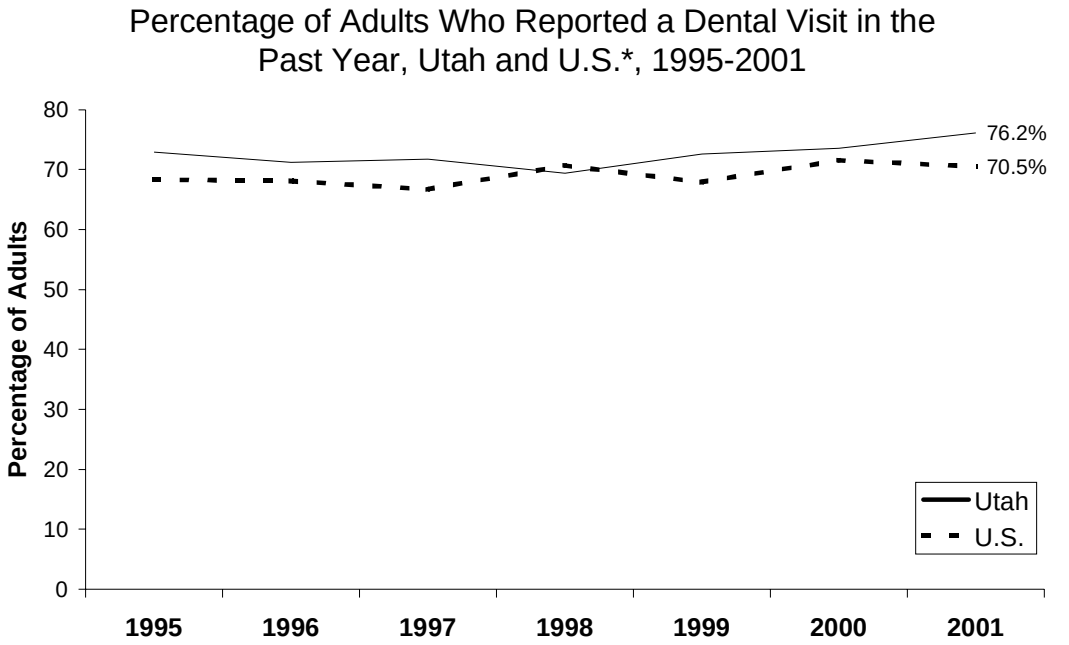
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

Note: Age-adjusted to U.S. 2000 standard population.

- Utah adults are less likely to get routine annual medical exams than are their counterparts nationally.
- Women are generally more likely than men to have a routine check-up presumably because of childbearing and other reproductive health-related issues. Older Utahns, who are at greater risk for a chronic medical condition, are more likely to report a routine check-up than are younger adults.
- People without insurance are less likely to get routine medical care than those with insurance.
- It is probably safe to assume that almost all persons in fair or poor health should have a visit with their primary health care provider at least once every 12 months. Yet in Utah, more than one fourth of those in fair or poor health had no primary care visit in the last year.

Routine Dental Health Care Visits

Regular dental visits are important in the prevention, early detection, and treatment of oral and craniofacial diseases and conditions for all ages. Adults need regular professional care to avoid the need for complex restorative treatment, tooth loss, and even systemic health problems. Even people without teeth need to be monitored regularly for oral health which may be affected by systemic conditions, medications, prosthetic devices, and exposure to tobacco.



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

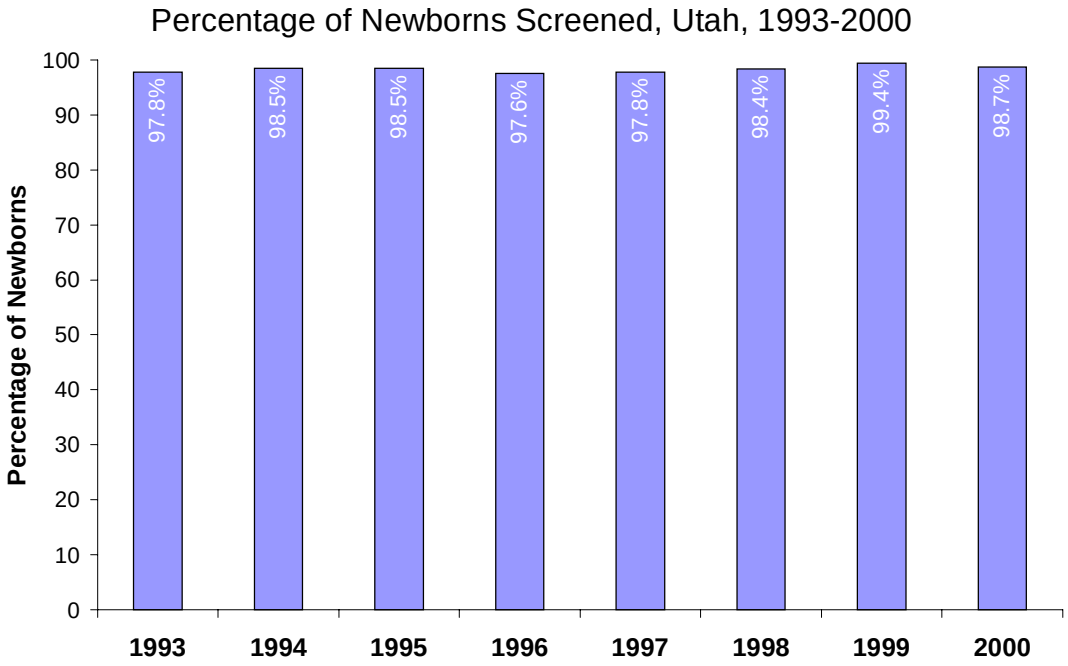
Note: Age-adjusted to U.S. 2000 population. *U.S. data are the average of all states and the District of Columbia; they do not include U.S. territories.

- The percentage of Utah adults who reported a dental visit in the past year increased from 73% in 1995 to 76% in 2001. The Utah 2001 percentage was significantly higher than that for adults in the U.S. (70.5%).
- Adults ages 65 years and older are less likely to report a routine dental visit in the past year than all other adults. Those Utahns with less than a high school education and those with annual household incomes less than $20,000 were least likely to receive routine dental care. In state surveys, Utahns have reported problems with access to dental care. The cost of dental care is the most commonly cited reason for problems with access.
- Gum infections have been called the “sixth complication of diabetes,” because people with diabetes are more likely to have periodontal disease. Mothers who suffer from gum disease are significantly more likely to deliver their babies prematurely than women without that illness. Regular preventive dental care for pregnant women and, more generally, for women in their childbearing years, could prevent this illness and decrease the number of premature births.
- The Utah Department of Health Oral Health Program’s current priorities include promoting fluoride and dental sealants and preventing tooth decay in young children and encouraging annual dental visits for both children and adults.

Newborn Heelstick Screening

Screening of newborns for genetic disorders and disabling conditions facilitates early entry into comprehensive care programs, which can improve quality of life, avoid disability, and save lives. Utah infants are screened for phenylketonuria (PKU), congenital hypothyroidism, and galactosemia. Hemoglobinopathy was added in September 2001.

Healthy People 2010 Objective 16-20a Goal: Newborn bloodspot screening - For phenylketonuria and hemoglobinopathies (Data not collected). (See Appendix)

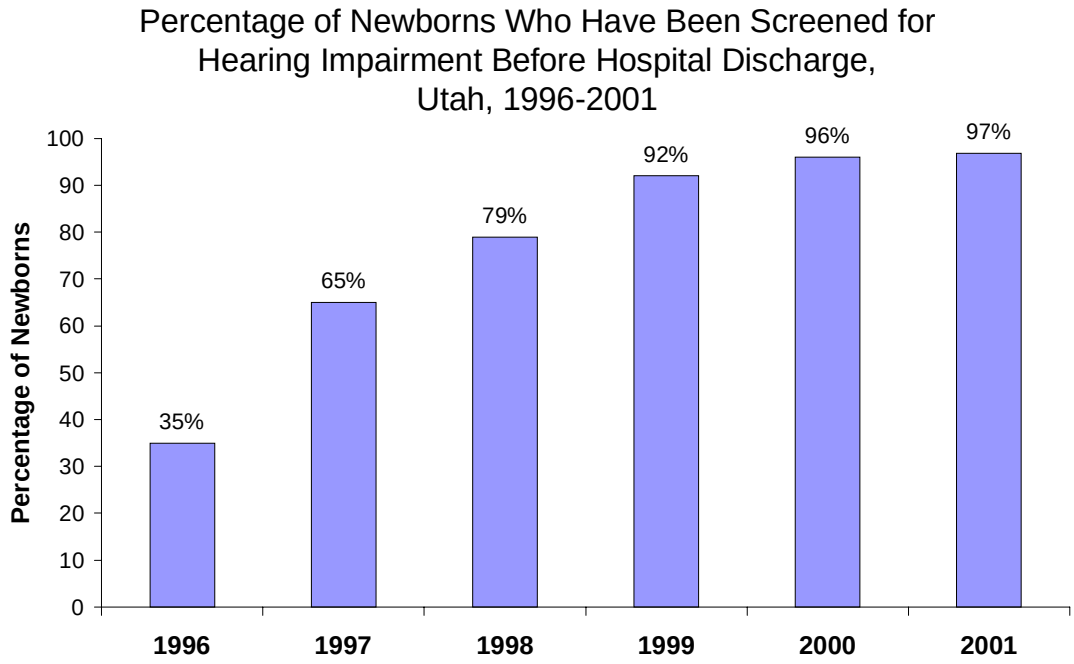


Source: Division of Community and Family Health Services, Utah Department of Health
Note: Disorders include congenital hypothyroidism, galactosemia, and phenylketonuria (PKU).; 2000 data are provisional.

- All genetic disorders can occur in any race. There is no correlation with income or social status. Risk factors for genetic conditions include family history.
- Most of the newborns with metabolic disorders appear normal. Signs/symptoms do not develop until the disorder is advanced and morbidity has been established. Early intervention (treatment, dietary changes, etc.) before signs/symptoms appear can minimize, if not eliminate, the impact on the newborn's life (allow normal growth and development).
- Screening is a system-level intervention overseen in Utah by the UDOH Division of Community and Family Health Services. Partners include institutions of birth, the State Lab, and the Medical Home provider. Specialty multidisciplinary clinics, which may include pediatric geneticists and genetic counselors, complement the Medical Home in providing specialized services and care for the family and newborn. All components help in the education of the family and newborn.
- During the next decade, genetic technology will dramatically increase the potential to screen newborns for inherited diseases. Significant future policy decisions will include the means to pay for the prevention services made possible through such emerging technology.

Newborn Hearing Screening

It is extremely important for hearing impairments to be detected early, so that optimal speech and language development may occur. The most effective method to implement early identification of hearing loss is to screen all babies before they leave the birthing hospital.



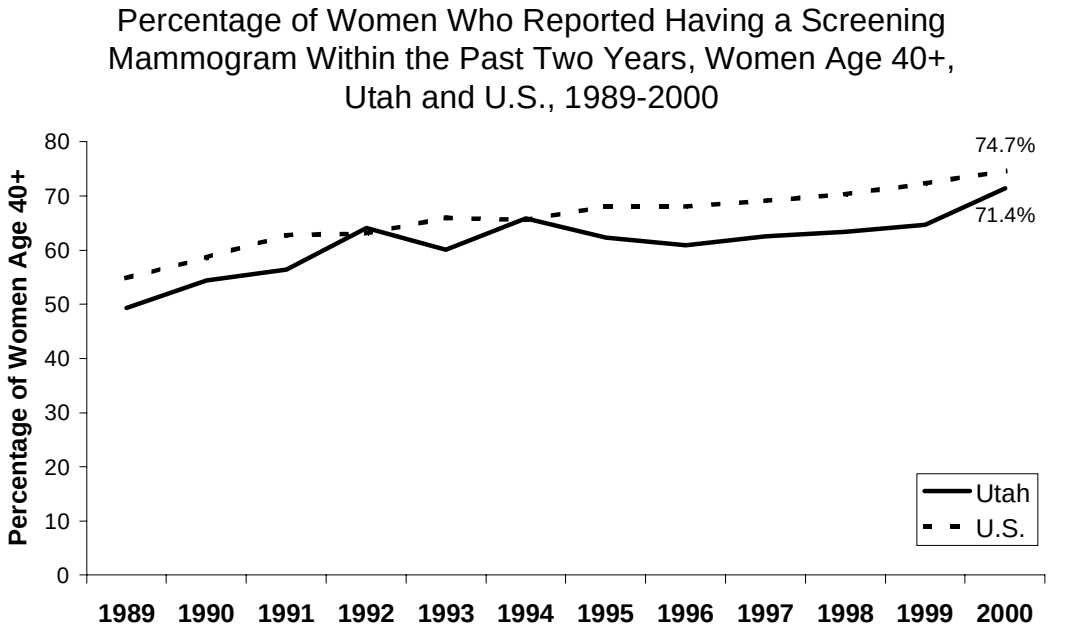
Source: Division of Community and Family Health Services, Utah Department of Health

- The UDOH Hearing, Speech and Vision Program oversees newborn hearing screening in Utah. The percentage of U.S. total births screened as newborns was 69.0% as of May 2002. 98.5% of Utah newborns are currently screened (data as of 8/6/02). Utah ranks in the top five states.
- State legislation requires that as of July 1, 1999, all newborns, including those born at home, must have their hearing screened by three months of age.
- All hospitals are required to participate by legislative mandate. However, actual screening rates are dependent upon individual hospital commitment, regardless of demographics.
- The critical age for initiating habilitation for hearing impairment is six months. Most infants receiving intervention by this age develop language approximating their normal hearing peers. Intervention delayed beyond six months has been shown to have less successful outcomes.

Breast Cancer Screening - Mammography

Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and a leading cause of female cancer death in both Utah and the U.S. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years[7-12], and by about 17% in women aged 40 to 49 years.[13-14] Recent research suggests that ultrasound may be a better screening tool for some women.

Healthy People 2010 Objective 3-13 Goal: Mammograms - Adults receiving within past 2 years (age-adjusted, females aged 40 years and older) (70%). (See Appendix)



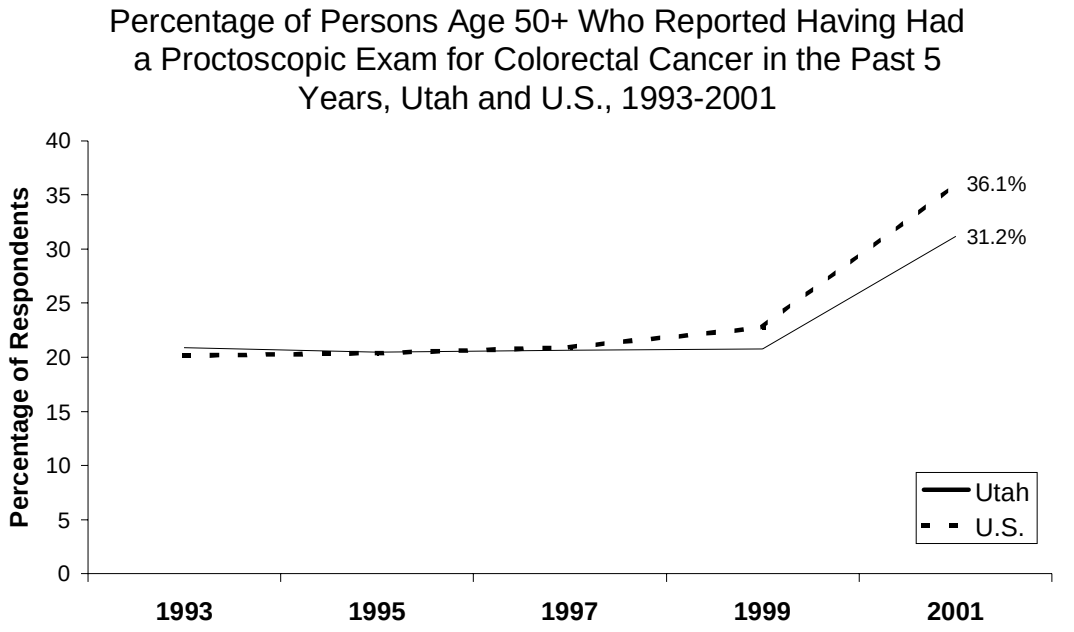
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

Note: Age-adjusted to U.S. 2000 standard population.

- The percentage of women who report receiving mammograms as part of a routine check-up (screening mammograms) has been increasing. Between 1990 and 2000, the percentage of Utah women aged 40 or older who reported receiving a screening mammogram within the past two years increased from 54.4% to 71.4%.
- Use of mammography is lower among women without health insurance compared to women with health insurance. Mammography is a preventive service covered by Medicare.
- The most important risk factor for breast cancer is increasing age. Other established risk factors include personal or family history of breast cancer, history of abnormal breast biopsy, genetic alterations, early age at onset of menses, late age at onset of menopause, never having children or having a first live birth at age 30 or older, and history of exposure to high dose radiation.
- The UDOH Utah Cancer Control Program (UCCP) distributes free mammography vouchers to women who receive a clinical breast exam at a UCCP sponsored clinic and meet age and income guidelines.

Colorectal Cancer Screening

Colorectal cancer is the second leading cause of cancer-related deaths in the U.S. and Utah. When national cancer-related deaths are estimated separately for males and females, colorectal cancer is the third leading cause of cancer death behind lung and breast cancers for females and behind lung and prostate cancers for males. Screening for this cancer is important as deaths can be substantially reduced when precancerous polyps are detected early and removed. The chance of surviving colorectal cancer exceeds 90% when the cancer is diagnosed before it has extended beyond the intestinal wall.



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

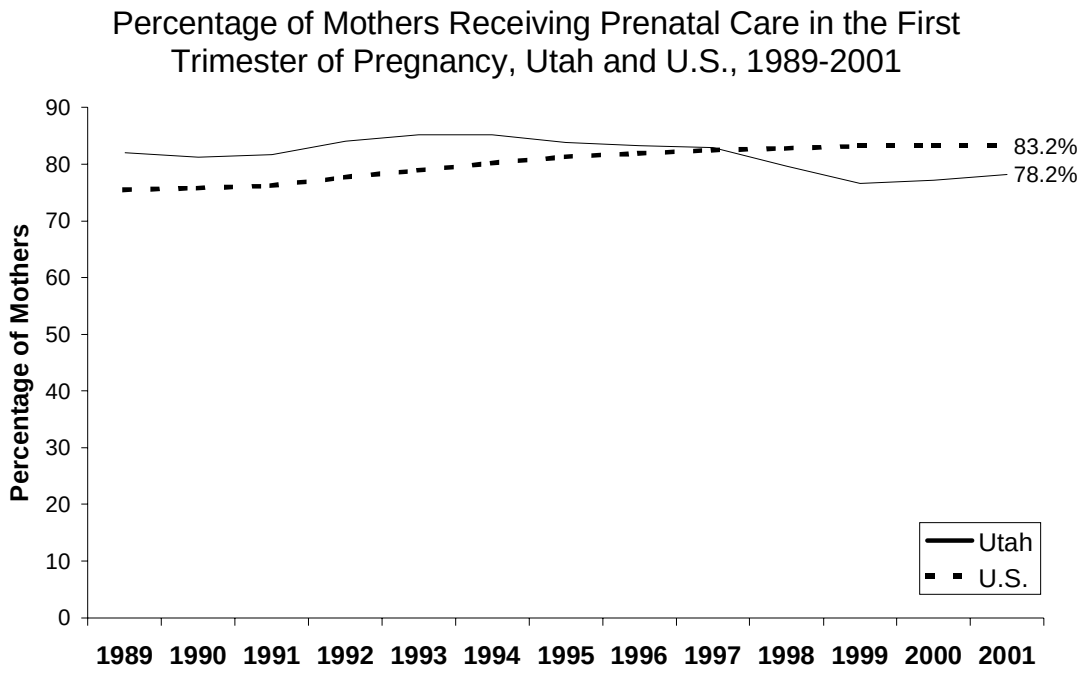
Note: Age-adjusted to U.S. 2000 standard population.

- About one third (31%) of Utah adults 50 and older were screened for colon cancer within the past five years despite clear scientific evidence that early detection and treatment decrease cancer-related deaths. Utah women were less likely to be screened within the past five years compared to Utah men. Furthermore, only about 15% of older Utahns reported having an annual fecal occult blood test (FOBT) within the past year.[15]
- When colorectal cancers are detected at an early, localized stage of disease, the 5-year survival rate is 90%. However, only 37% of colorectal cancers are discovered at that stage.[16]
- The Utah Cancer Control Program (UCCP) provides free FOBT kits upon request to women who present for screening at UCCP sponsored breast and cervical cancer screening clinics. Efforts are also underway to increase awareness about colorectal cancer and promote regular screening for this cancer.

Prenatal Care

Women who receive early and consistent prenatal care (PNC) enhance their likelihood of giving birth to a healthy child. Prenatal care can improve birth outcomes and prevent medical complications and their costs associated with premature births, low birth weight births, and maternal and infant mortality and morbidity. Health care providers recommend that most women begin prenatal care in the first trimester of their pregnancy.

Healthy People 2010 Objective 16-6a Goal: Prenatal care - Beginning in first trimester (90%). (See Appendix)



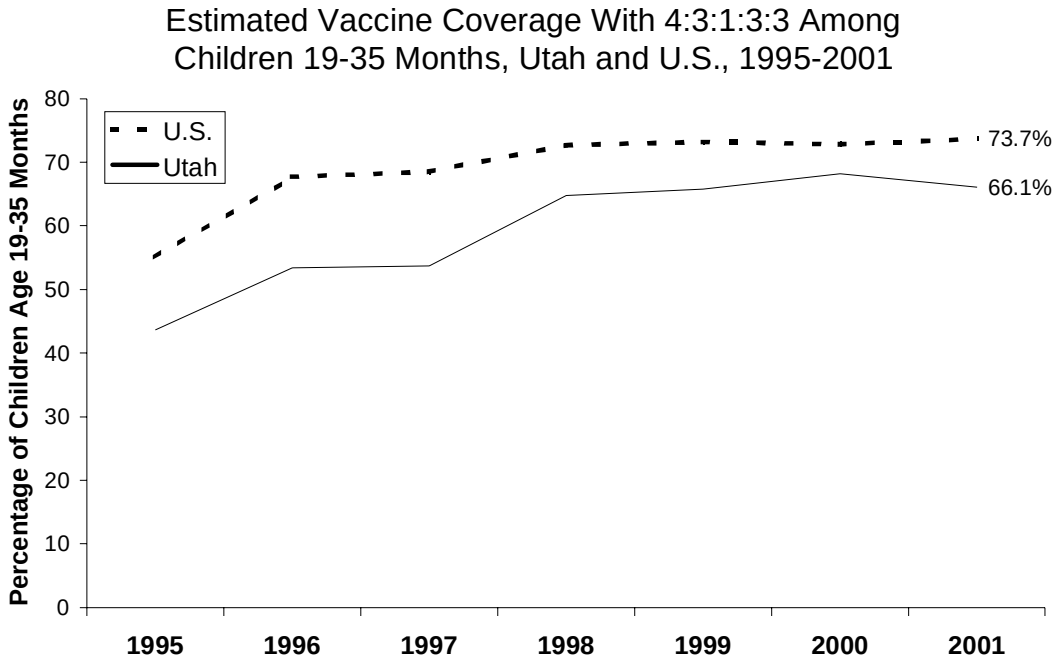
Source: Office of Vital Records and Statistics, Utah Department of Health

Note: Percentage of mothers of live born infants where prenatal care was reported to have been received in the first trimester (Births where prenatal care was unreported were counted in the denominator.)

- The percentage of Utah mothers receiving prenatal care in the first trimester has been on a decline since 1995. The Utah rate in 2001 (79.3%) was below that of the nation (83.4%-NCHS preliminary data).
- Pregnant teens 15-19 years of age, those with low level of education, race other than White, being unmarried, residing in an urban setting, lower socio-economic status, lack of health insurance, and reported smoking prior to pregnancy are less likely to get early prenatal care. If a pregnancy is planned, a woman is more likely to seek early and adequate prenatal care.
- The Utah Department of Health Baby Your Baby Program sponsors a statewide media campaign and provides information and referral services to pregnant women in Utah. A pregnancy risk line is available to pregnant women. The Pregnancy Risk Assessment Monitoring System (PRAMS) collects and analyzes data to identify characteristics of Utah women and their utilization of PNC. The Reproductive Health Program will utilize this data to target interventions in those populations identified as having poor first trimester entry.

Immunizations 4:3:1:3:3

Immunizations are the most cost-effective health prevention measures. Development of vaccinations had been cited by the U.S. Public Health Service as one of the Ten Great Public Health Achievements in the 20th Century.[17] Vaccines play an essential role in reducing and eliminating disease. By two years of age, it is recommended that all children should have received 4 doses of diphtheria-tetanus-pertussis (DTP), 3 doses of polio, 1 dose of measles-mumps-rubella (MMR), 3 doses of Hepatitis B, and 3 doses of Haemophilis Influenza, type B (Hib) vaccines. This recommendation is referred to in shorthand as "4:3:1:3:3."



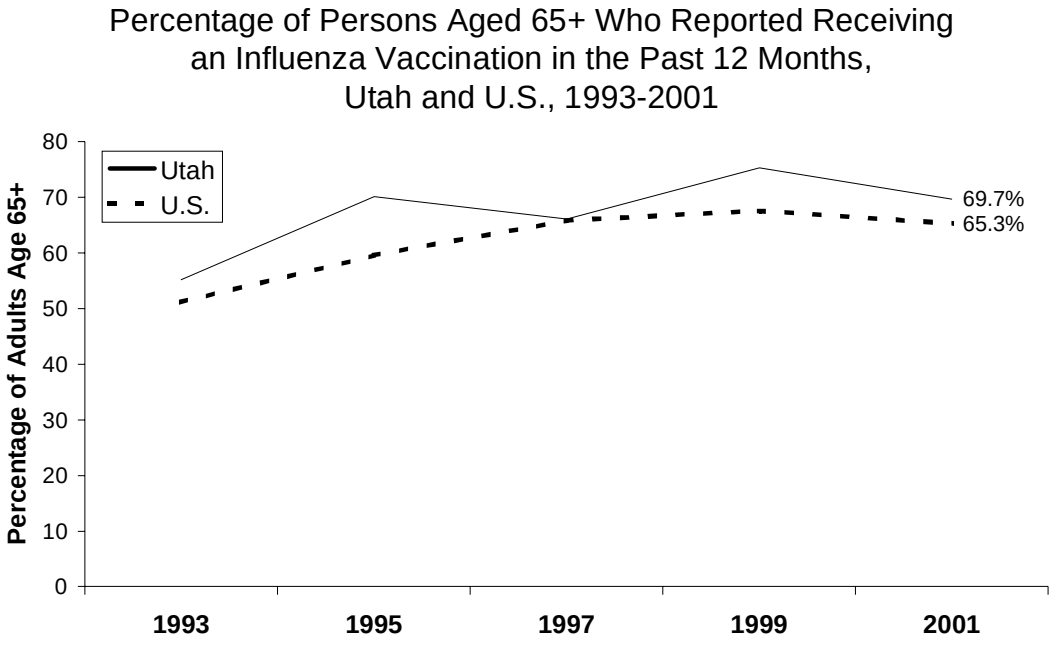
Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

- In Utah, cases of vaccine-preventable diseases are down. The availability of vaccines has reduced levels of communicable diseases by more than 97% from peak levels.
- Utah Department of Health's Immunization Program conducts annual assessments of private and public health care providers' immunization records to obtain state immunization levels. Utah also has immunization coalitions that are working to maintain or improve current levels of immunization and to increase public awareness of immunizations.
- While Utah's 4:3:1:3:3 rate has improved, our 2001 ranking among all states is still relatively low (48th) because childhood immunization has been improving in all states.
- Utah's Statewide Immunization Information System (USIIS) provides a mechanism for health care providers to track patient immunizations and send reminder cards to Utah parents whose children are due for immunizations.
- Due to the increased costs of vaccine, public health clinics are now able to provide publically purchased vaccine only to those who meet eligibility criteria and don't have insurance coverage.

Immunization - Influenza, Adults

Influenza, or flu, is an acute viral infection involving the respiratory tract that can occur in epidemics or pandemics. Influenza can cause a person, especially older persons, to be more susceptible to bacterial pneumonia. People 50 years of age or older and those with health conditions and compromised immune systems should receive influenza vaccine yearly in October. All others wishing to protect themselves against influenza should be immunized in November or December.

HEALTHY PEOPLE 2010 OBJECTIVE 14-29A GOAL: INFLUENZA AND PNEUMOCOCCAL VACCINATION OF HIGH-RISK ADULTS - NONINSTITUTIONALIZED ADULTS -INFLUENZA VACCINE (AGE-adjusted, AGES 65 YEARS AND OLDER) (90%). (SEE APPENDIX)



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health
Note: Age-adjusted to U.S. 2000 standard population.

- The percentage of Utahns aged 65+ who received a flu vaccine is measured every two years by the Behavioral Risk Factor Surveillance System (BRFSS) survey, and was found to be 70% in 2001, down slightly from 1999. Nationwide, for the same group the rate was 65%.
- In 2001, most (374) of the 412 deaths from influenza and pneumonia were among persons age 65 and over. There was a total of 5,716 hospitalizations for influenza and pneumonia, 2,923 of them among persons in the 65+ age group. The total hospital charges were almost $57 million, with 52% of all hospital charges (almost $30 million) for persons age 65 and over.
- The UDOH Immunization Program and Office of Epidemiology educate health care providers, clinic staff, and the public about prevention methods and support outbreak investigations.

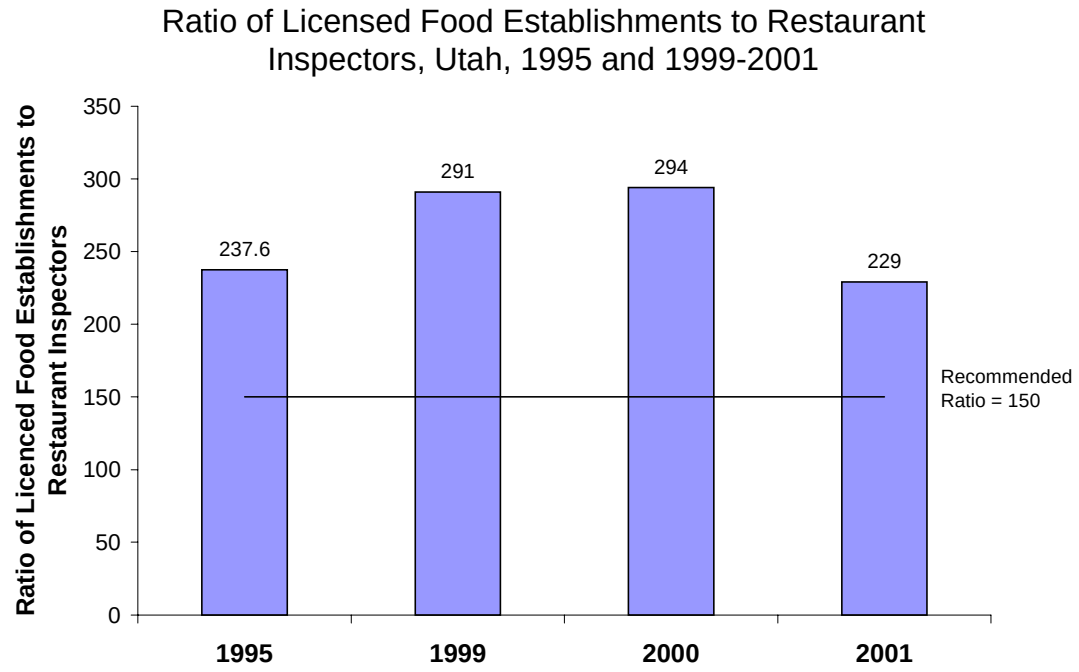
3. Risk Factors for Illness

Goal: Utahns will achieve a higher quality of life by adopting safe, healthy lifestyles and providing safe and healthy environments.

A. Environmental Risk Factors
B. Lifestyle Risk Factors

Safe Restaurant Food

Food-borne disease outbreaks sometimes result from failures in protective systems, but are more often the result of improper food handling. Children, the very old, and people with immunological deficiencies are at increased risk of infection and death resulting from food contamination.



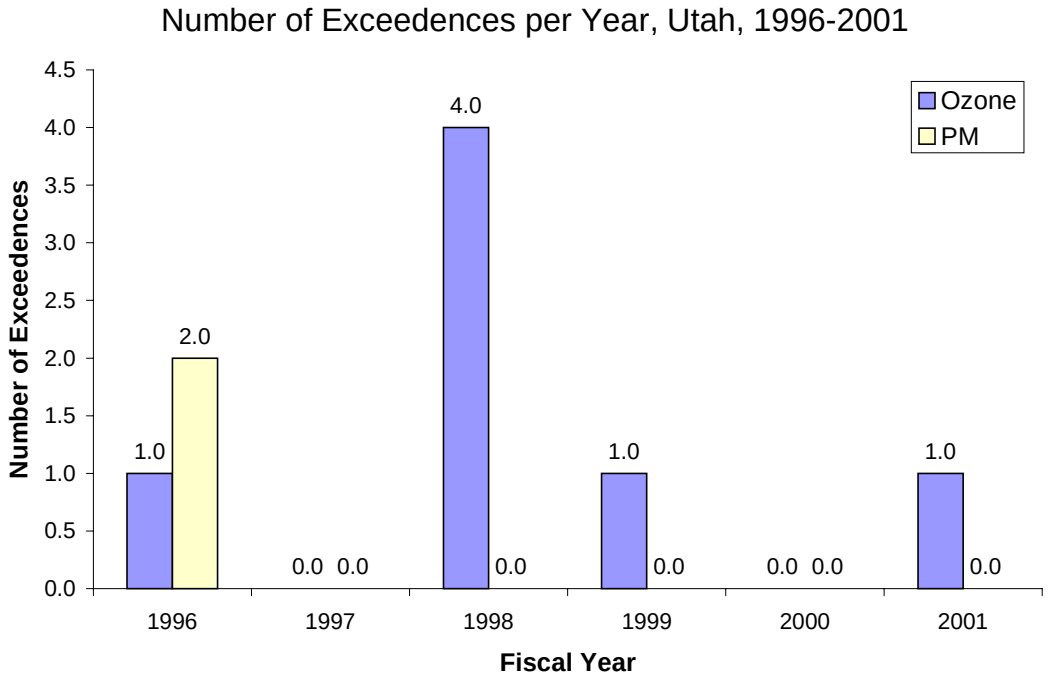
Source: Bureau of Food Safety and Environmental Health, Division of Epidemiology and Laboratory Services, UDOH

- The number of licensed food establishments decreased 2% from 8,166 in 1999 to 7,997 in 2001.
- The Food and Drug Administration recommends a minimum staffing ratio of 1 restaurant inspector (full-time equivalent, or FTE) for every 150 food establishments. Only three local health departments met this standard in 2001.
- Local health departments had 34.9 FTEs committed to inspecting 7,997 food service establishments in 2001. To meet minimum staffing ratios, local health departments would need more than 18 additional FTEs.
- Since 1996, a 30% annual turnover rate for local health department restaurant inspectors has been documented.
- The Utah Department of Health has only one FTE available to provide training, standardization, data collection, and other support for the statewide food protection program.

Air Quality

Air quality plays a fundamental role in health and disease. Particulate matter, carbon monoxide, and sulfur dioxide affect breathing and respiratory function. Existing respiratory and cardiovascular disease may be aggravated, the body's defense system against bacteria and viruses may be altered, and lung tissue may be damaged. Health threats are most serious for those who suffer from cardiovascular disease, asthma, emphysema, influenza, and bronchitis. Children and the elderly are also likely to be adversely affected by heavy concentrations of these pollutants.

Healthy People 2010 Objective 8-1a Goal: Harmful air pollutants - Persons exposed to ozone (0%). (See Appendix)



Source: U.S. Environmental Protection Agency (EPA), Office of Air and Radiation, AIRS data

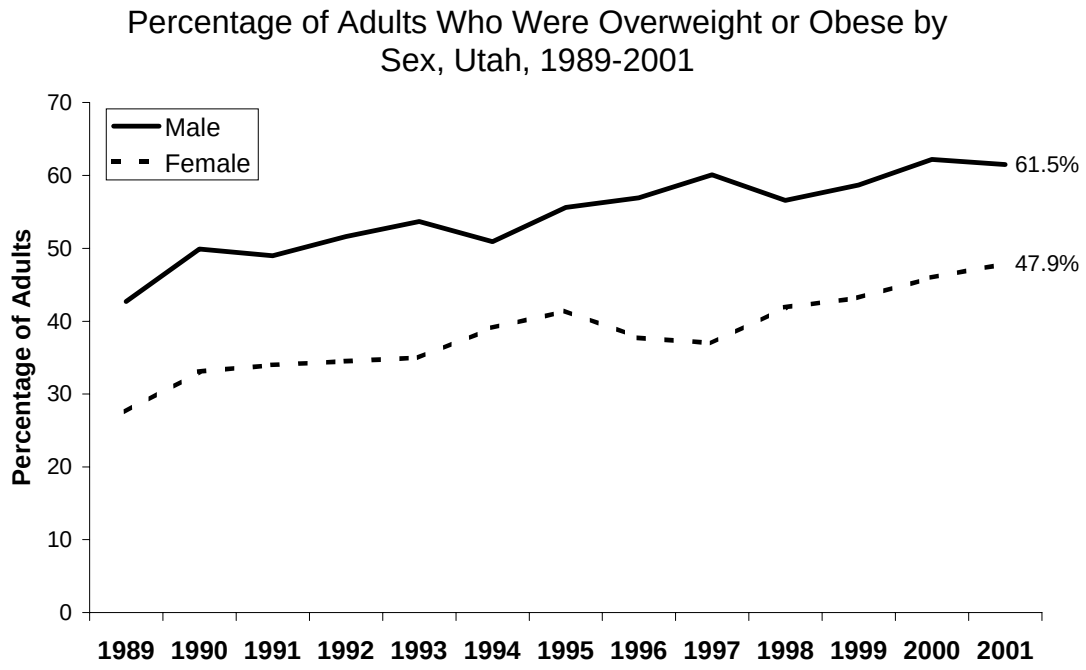
Note: An "exceedence" is a day on which the air content exceeded the criterion for that pollutant, at any time during the day, at any of Utah's air monitoring stations.

- Air quality is a serious health concern for the United States and for Utah. Despite its large land area, Utah's population is very highly concentrated in urban areas. Along the Wasatch Front, 60% of particulate matter and 70% of carbon monoxide emissions come from vehicles. The I/M (Motor Vehicle Inspection/Maintenance) programs in Davis, Salt Lake, Utah, and Weber counties facilitate proper maintenance of cars and trucks to reduce emissions.
- The Utah Division of Air Quality issues health advisories whenever pollution increases to levels of concern as determined by U.S. Environmental Protection Agency criteria. Health advisories are most critical for people with respiratory and heart diseases, the elderly, and children. When a health advisory is issued, they should limit outdoor exertion whenever possible.
- A variety of regulatory controls on industrial sources reduce particulate emissions. During the last several years, the Western Regional Air Partnership (WRAP), has forged a plan to reduce man-made haze. WRAP's efforts should reduce haze in urban and rural, scenic areas.

Overweight or Obese

Being overweight increases the risk of many chronic diseases, including heart disease, stroke, hypertension, type 2 diabetes, osteoarthritis, and some cancers. Obesity is the second leading cause of preventable death in the U.S.[18] Utahns have been gaining weight so rapidly that in 2001 over half of all adults were overweight or obese. The obesity epidemic among Utahns threatens to reverse the decades-long progress made in reducing death from chronic disease.

HEALTHY PEOPLE 2010 OBJECTIVE 19-2 GOAL: OBESITY IN ADULTS (AGE-adjusted, AGES 20 YEARS AND OLDER) (15%). (SEE APPENDIX)



Source: Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, UDOH

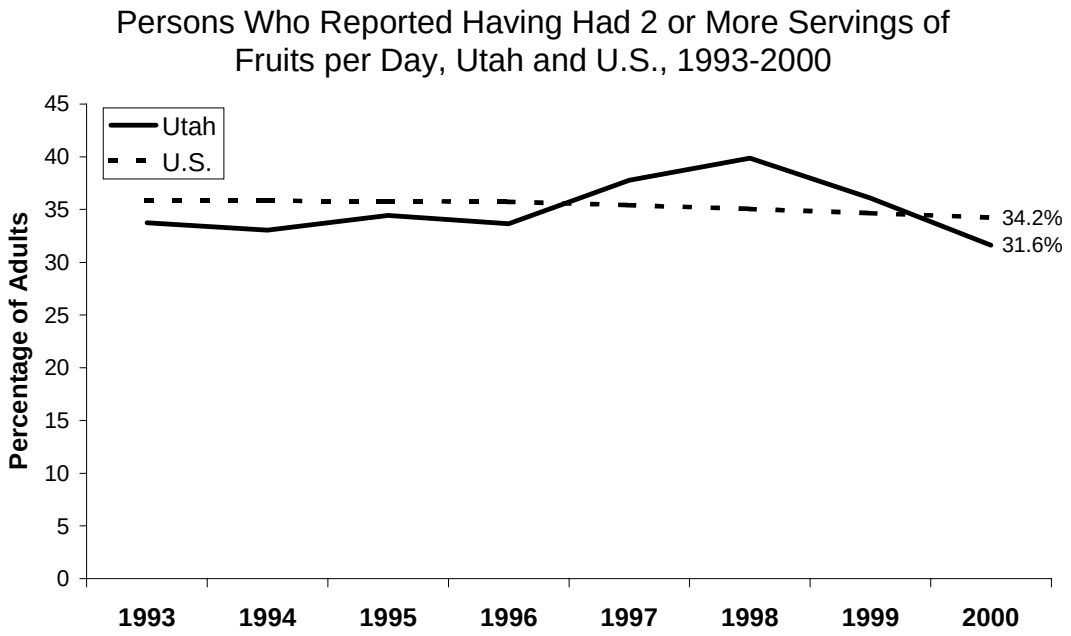
Note: Overweight or obese is defined as a BMI of 25 or more.

- The percentage of adults who were overweight or obese increased steadily in Utah and the U.S. in the last decade. In Utah, the percentage of overweight or obese individuals increased from 35.0% in 1989 to 55.4% in 2001. In fact, the number of overweight or obese Utahns has more than doubled since 1989 from an estimated 388,500 persons to an estimated 867,300 persons in 2001.
- More Utah men than women were overweight or obese during the time period 1989 through 2001, and this trend was seen across all age groups. The percentage of overweight or obese Utahns increased with age through 64 years and then decreased for those 65 years or older.
- Genetic or familial factors may increase the risk for being overweight or obese for some people, but anyone whose calorie intake exceeds the number of calories they burn is at risk. Physical activity and a healthy diet are both important for maintaining a healthy weight.
- The Utah Alliance for Cardiovascular Health has developed a comprehensive state plan. The plan includes UDOH activities for obesity prevention and reduction.

5 A Day - Fruit (2 or More)

There are many benefits to eating fresh fruits and vegetables, including weight loss, a decrease in the risk of certain types of cancer, and a lower risk of heart disease. Some of the benefits result directly from the fruits and vegetables, and other benefits derive from the fact that if a person consumes five servings of fruits or vegetables a day, he or she is usually consuming fewer less-healthy foods, such as foods that are high in fat or calories.

Healthy People 2010 Objective 19-5 Goal: Fruit intake - At least two daily servings (age-adjusted, ages 2 years and older) (75%). (See Appendix)



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

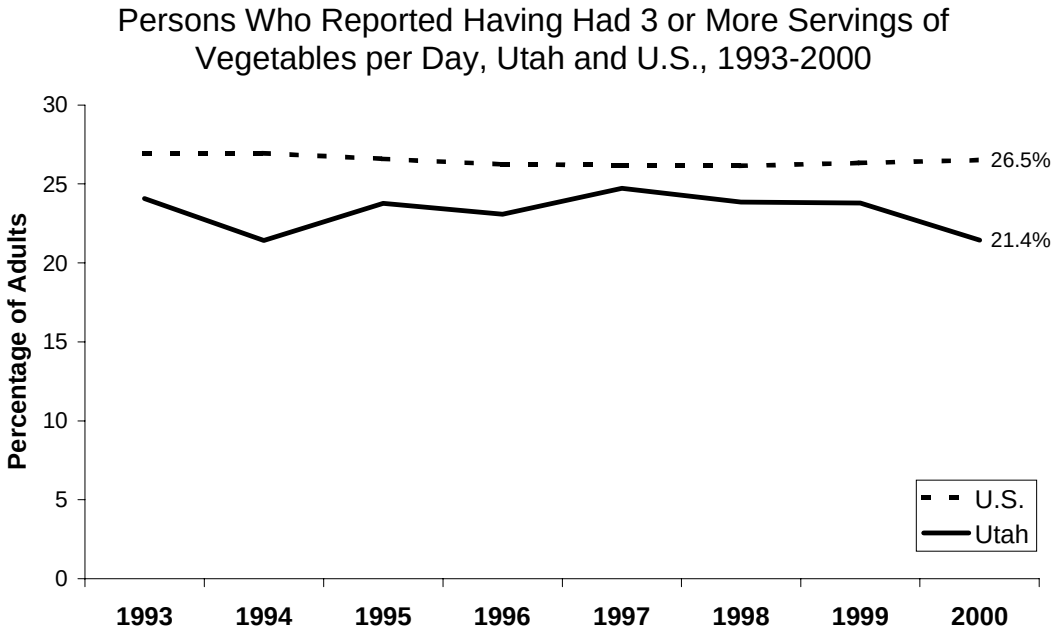
Note: Age-adjusted to U.S. 2000 standard population.
U.S. data do not include U.S. territories, but do include District of Columbia.
In the odd years, not all states asked the 'Fruit and Vegetable' questions on their state BRFSS surveys, so the number shown is simply the average of the previous and next year.

- In 2000, only 31.6% of Utah adults reported eating two or more servings of fruit each day.
- There is some evidence that people who form the habit of eating fruits and vegetables early in life are likely to maintain the behavior as adults.[19]
- People who eat few fruits and vegetables are at higher risk for developing several types of cancer, heart disease, stroke, and other chronic diseases.
- 5 a Day, a statewide partnership-based program, promotes the message to eat five servings of fruits and vegetables each day for better health. 5 a Day at School has reached more than 90% of Utah's elementary schools. Since the implementation of the 5 a Day program in 1994, Utah adults' awareness of the 5 a Day message has increased from 4.6% to 34.7%.

5 A Day - Vegetables (3 or More)

There are many benefits to eating fresh fruits and vegetables, including weight loss, a decrease in the risk of certain types of cancer, and a lower risk of heart disease. Some of the benefits result directly from the fruits and vegetables, and other benefits derive from the fact that if a person consumes five servings of fruits or vegetables a day, he or she is usually consuming fewer less-healthy foods, such as foods that are high in fat or calories.

HEALTHY PEOPLE 2010 OBJECTIVE 19-6 GOAL: VEGETABLE INTAKE - AT LEAST THREE DAILY SERVINGS, WITH AT LEAST 1/3 BEING OF DARK GREEN OR DEEP YELLOW (AGE-adjusted, AGES 2 YEARS AND OLDER) (50%). (SEE APPENDIX)



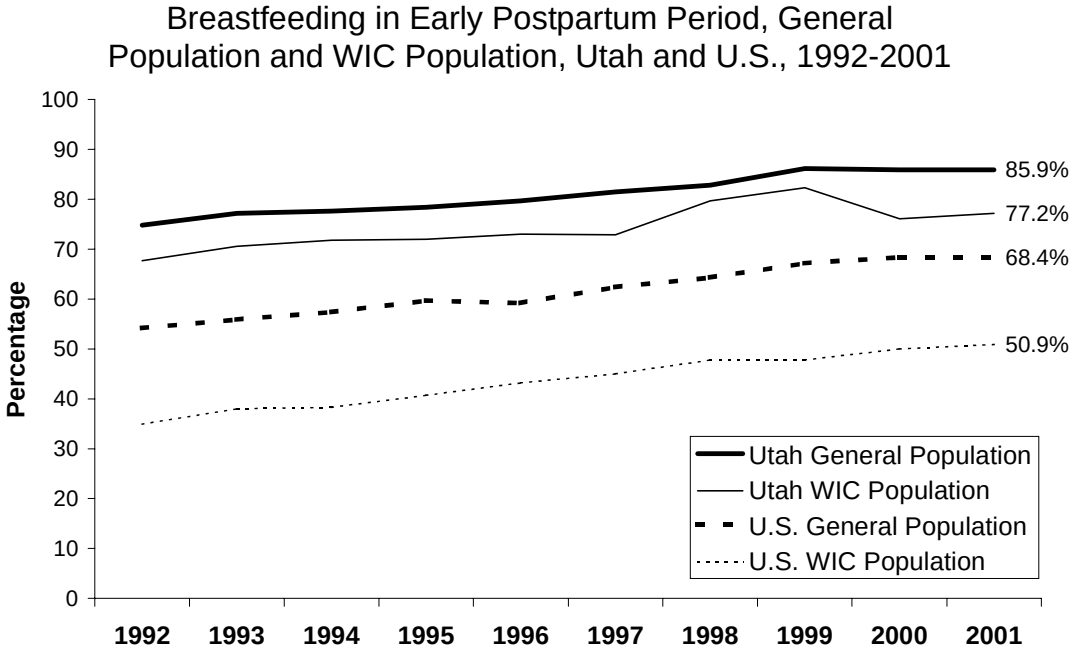
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health
Note: Age-adjusted to U.S. 2000 standard population.
U.S. data do not include U.S. territories, but do include District of Columbia.
In the odd years, not all states asked the 'Fruit and Vegetable' questions on their state BRFSS surveys, so the number shown is simply an average of the previous and next year.

- Only 21.4% of Utah adults reported eating three or more daily servings of vegetables in 2000.
- The percentage of Utah adults who reported eating three or more daily servings of vegetables has consistently been below the U.S. percentage. For example, this percentage was 21.4% in Utah and 26.5% in the U.S. in 2000.
- Overall, more men than women reported eating 5 a Day and older Utahns were more likely to eat 5 a Day than younger Utahns.
- 5 a Day, a statewide partnership-based program, promotes the message to eat five servings of fruits and vegetables each day for better health. 5 a Day at School has reached more than 90% of Utah's elementary schools.

Breastfeeding in Early Postpartum Period

Breastfeeding is the preferred feeding for all infants, including premature and sick babies, with rare exceptions.[20] Breastmilk benefits the newborn infant by providing the ideal balance of nutrients, enzymes, immunoglobulin, anti-infective and anti-inflammatory substances, hormones, and growth factors. Breastfeeding helps the mother return to the physiologic pre-pregnant state. It benefits both mother and child by providing a time of intense, nurturing maternal-infant interaction. In addition, breastfeeding provides social and economic benefits to the family, including reduced health care costs and reduced employee absenteeism for care related to children's illnesses.

HEALTHY PEOPLE 2010 OBJECTIVE 16-19A GOAL: BREASTFEEDING - IN EARLY POSTPARTUM PERIOD (75%). (SEE APPENDIX)



Sources: CDC Pediatric Nutrition Surveillance; Mother's Survey, Ross Products Division, Abbott Laboratories; Utah Women, Infants and Children (WIC) Program, Division of Community and Family Health Services, Utah Department of Health

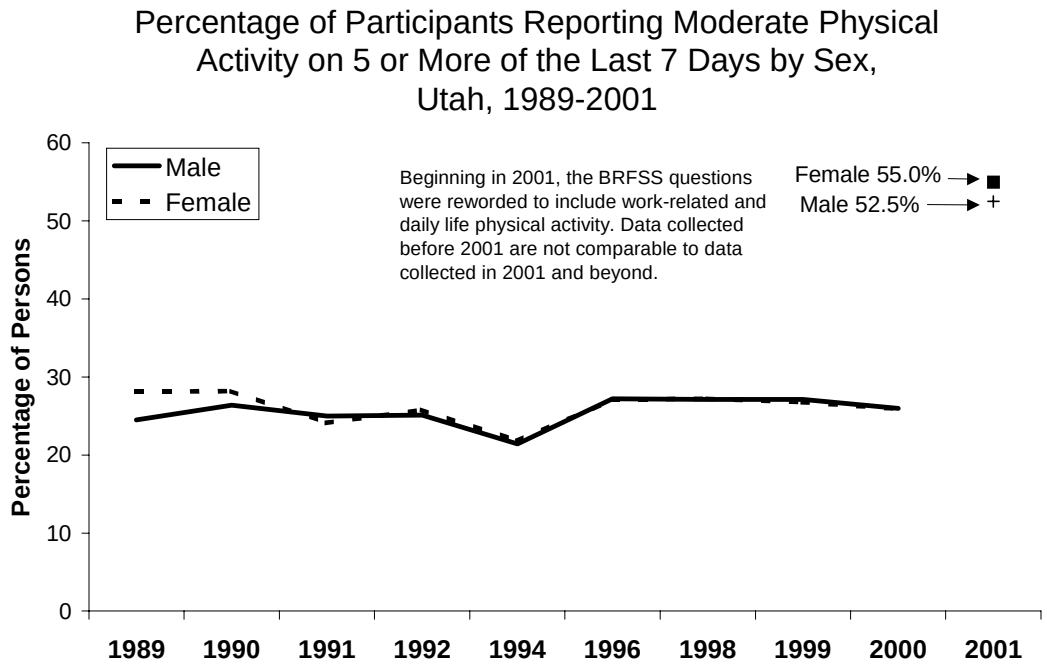
Note: Utah WIC Program data for 1998-1999 shows aberration; cause for this has not been identified.

- The Healthy People 2010 goal of early postpartum breastfeeding rates of at least 75% has been met in Utah, for both the general population and the WIC Program. In 2001, 85.9% of Utah mothers surveyed were breastfeeding their babies before they left the hospital. In 2001, 77.2% of infants in the Utah WIC Program were ever breastfed.
- Utah rates exceed the national averages for both the general population and WIC participants. The Utah WIC Program ranks 4th among participating states for percentage of infants ever breastfed.
- WIC Breastfeeding Promotion activities include: training of professional and paraprofessional staff, providing grants to local agencies for "Peer Counseling Programs," providing hand pumps and electric pumps to WIC mothers, and developing written policies for WIC clinics that promote breastfeeding.

Physical Activity

Physical activity is recognized as an independent protective factor against cardiovascular disease. It has been shown to reduce the risk of some cancers, diabetes, stroke, and heart disease, and improve general physical and mental health. Weight-bearing activity improves bone density, reducing the risk of hip fracture in elderly persons. Regular activity helps to relieve pain from osteoarthritis. It would be difficult to overestimate the health-promoting influence of regular physical activity.

HEALTHY PEOPLE 2010 OBJECTIVE 22-2 GOAL: MODERATE PHYSICAL ACTIVITY (AGE-adjusted, AGES 18 YEARS AND OLDER) (30%). (SEE APPENDIX)



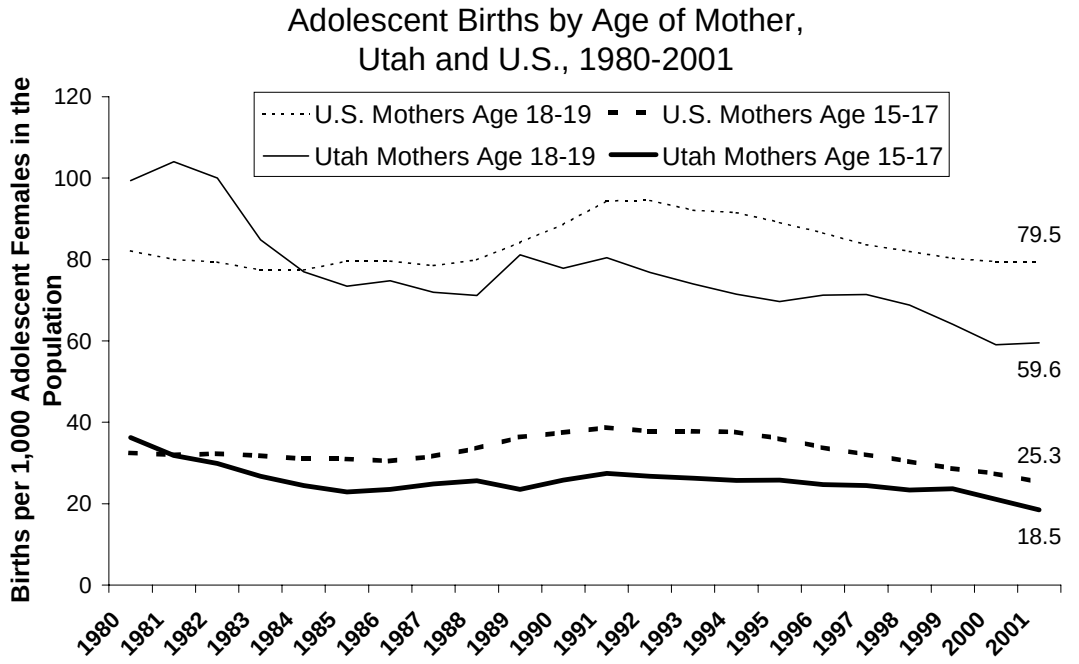
Source: Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, UDOH

Note: Moderate activity is defined by BRFSS definition of regular physical activity 5 or more sessions per week, 30 minutes or more per session, regardless of intensity.; Through the year 2000, this indicator focused on leisure time activities, but did not capture information on occupational activities and activity incorporated into daily life.

- In 2001, 53% of Utah males and 55% of Utah females reported at least 30 minutes of moderate physical activity on five or more days a week. In 2001, the BRFSS survey questions changed to include both leisure-time and work-related physical activity.
- When compared to the nation, Utahns are more physically active. In 2000, 30.0% of Utahns engaged in 30 minutes of regular physical activity on most days of the week. Nationally, the rate was 26.0%.
- Small changes in levels of physical activity such as walking or gardening can lead to big improvements in personal health. Even moderate amounts of exercise can substantially reduce an individual's chance of dying from heart disease, cancer, or other causes.
- The Cardiovascular Health Program and the Utah Alliance for Cardiovascular Health promotes physical activity among Utahns by working collaboratively with communities, worksites, schools, and local health departments.

Adolescent Births

Bearing a child during adolescence is associated with long-term difficulties for the mother, her child, and society. Compared to babies born to older mothers, babies born to adolescent mothers, particularly young adolescent mothers, are at higher risk of low birth weight and infant mortality. These babies are more likely to grow up in homes that offer lower levels of emotional support and cognitive stimulation, and they are less likely to earn a high school diploma. For the mothers, giving birth during adolescence is associated with limited educational attainment, which in turn can reduce future employment prospects and earning potential.

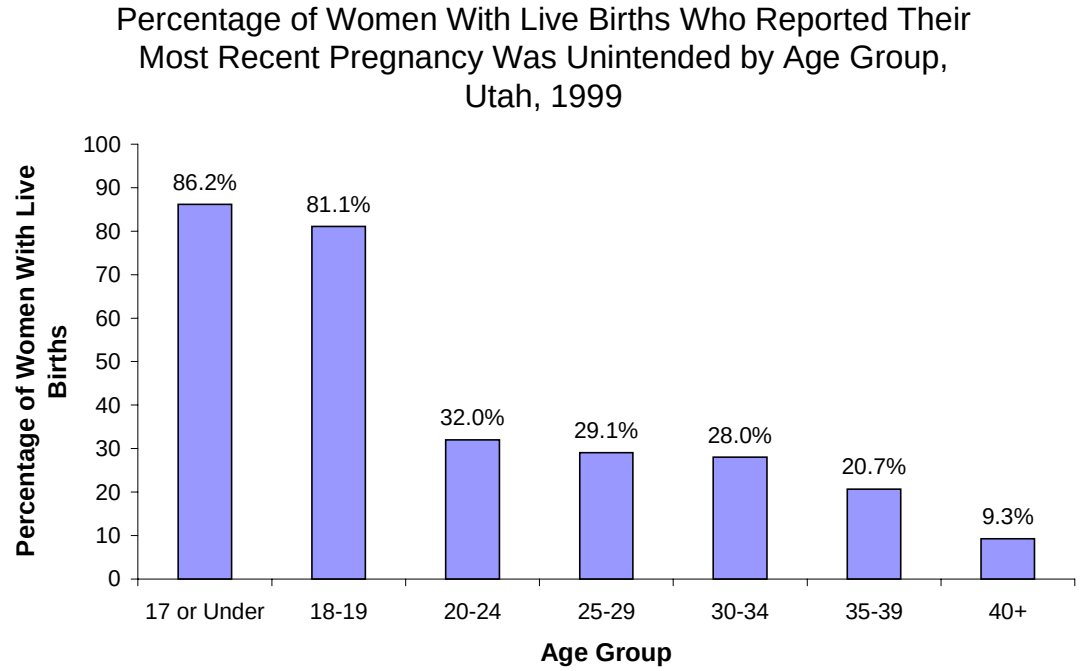


Sources: Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget

- Over 80% of births to adolescent mothers age 19 and younger were reported by the mother as "unintended" in the 1999 Pregnancy Risk Assessment and Monitoring Survey (PRAMS).
- Utah's adolescent birth rate has been lower than the United States' overall rate since about 1982, but is higher than several other states. Utah's adolescent birth rate has declined over the past decade as have national rates.
- Experiencing birth during adolescence can increase a teen's risk of acquiring a sexually-transmitted infection as well as seriously hinder future financial stability due to limited educational attainment.
- A detailed report on adolescent pregnancy in Utah has been published by the Utah Department of Health and can be accessed on the internet (www.utahrhp.org).
- The Utah Department of Health funds nine abstinence-only community based projects for youth 9-14 years throughout the state with federal abstinence education monies.

Births From Unintended Pregnancies

Unintended pregnancy is a general term that includes pregnancies that a woman reports were either mistimed or unwanted at the time of conception. Having an unintended pregnancy can contribute to short interpregnancy spacing (span between the birth of one child and the conception of another), which increases the risk of infant morbidity and mortality. In addition, unintended pregnancy can contribute to an increase in the rate of abortions as well as late entry into prenatal care. Women with inadequate care due to late entry are more likely to deliver a low birth weight baby.



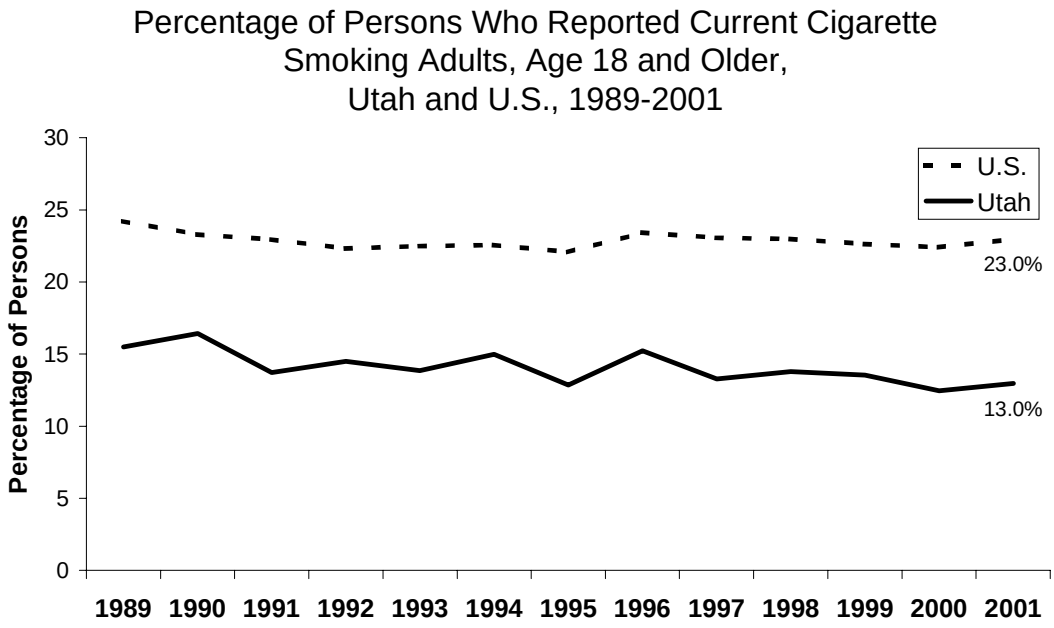
Source: Utah Pregnancy Risk Assessment Monitoring System (PRAMS), Utah Department of Health

- In 1999, 33.7% (15,000) of live births in Utah were the result of unintended pregnancies. Overall, slightly less than 20% of Utah women were using birth control at the time they conceived. Of the women who reported their pregnancies as unintended, 42.7% said they were using birth control at the time of conception. Even when properly used, contraceptive methods can fail. But more often, failure results from improper use.
- In order to accomplish, and to exceed, the HP2010 goal of 70% of pregnancies being intended, public health efforts may include:
  - √ Health Education - increase knowledge of human reproduction, conception, and proper use of available contraceptive methods; and promote optimal spacing of pregnancies for healthy outcomes.
  - √ Reproductive Health Services - increase dialogue between health care providers and women regarding reproductive health and family planning options.
  - √ Access to Health Care - improve insurance coverage for family planning services expanded with Primary Care Network.

Cigarette Smoking Among Adults

More than 440,000 deaths each year are attributed to cigarette smoking, making it the leading preventable cause of death in the U.S. Smoking increases the risk for chronic lung disease, coronary heart disease, and stroke, as well as cancer of the lungs, larynx, esophagus, mouth, and bladder. In addition, smoking contributes to cancer of the cervix, pancreas, and kidneys. Environmental tobacco smoke has been shown to increase the risk for heart disease and lung cancer among nonsmokers.

HEALTHY PEOPLE 2010 OBJECTIVE 27-1A GOAL: CIGARETTE SMOKING - ADULTS (AGE-adjusted, AGES 18 YEARS AND OLDER) (12%). (SEE APPENDIX)



Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

Note: Age-adjusted to U.S. 2000 population.; The Behavioral Risk Factor Surveillance System (BRFSS) survey is conducted with a representative sample of non-institutionalized Utah adults living in households with a telephone.

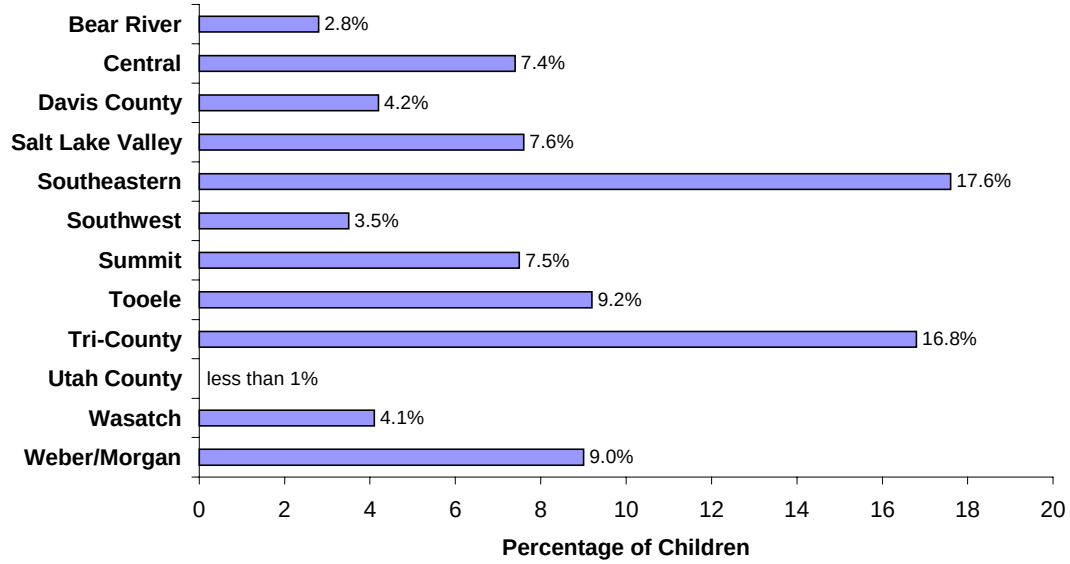
- While the overall rate of smoking has decreased in recent decades, approximately 13% of the Utah adult population still smokes (185,000 adults). Cessation of smoking by current smokers reduces their risk of heart disease, cancer, stroke, and respiratory disease.
- Utah's adult smoking rate has been the lowest in the nation for many years. In 2001, Utah's adult smoking rate was 13% compared with the national rate of 23%.
- Cigarette smoking is more common among persons in younger age groups, those with lower levels of education, and those in lower income groups.
- The Tobacco Prevention and Control Program (TPCP) at the Utah Department of Health encourages tobacco users to quit by providing information and education about the negative health effects of tobacco use and by supporting diverse statewide cessation services. Information and education initiatives include the "Truth About Tobacco" media campaign and local community prevention and education projects. The Utah Tobacco Quit Line (1-888-567-TRUTH) offers free cessation counseling to Utah adults.

Environmental Tobacco Smoke - Children Exposed

Childhood exposure to secondhand smoke, which can begin before birth and continue through childhood, is a major cause of morbidity in children. The presence of a smoker in a child's household has been shown to increase the child's risk for middle ear infections, asthma and other respiratory tract illnesses, sudden infant death syndrome (SIDS), and fire-related deaths and injuries. In addition, teens who live with smokers are more likely to become smokers themselves.

HEALTHY PEOPLE 2010 OBJECTIVE 27-9 GOAL: EXPOSURE TO TOBACCO SMOKE AT HOME - CHILDREN (AGES 6 YEARS AND UNDER) (10%). (SEE APPENDIX)

Percentage of Children Who Had Been Exposed to Cigarette Smoke Inside the Home by Local Health District, Utah Children Age 17 or Less, 2001



Source: Utah Health Status Survey, Office of Public Health Assessment, Utah Department of Health

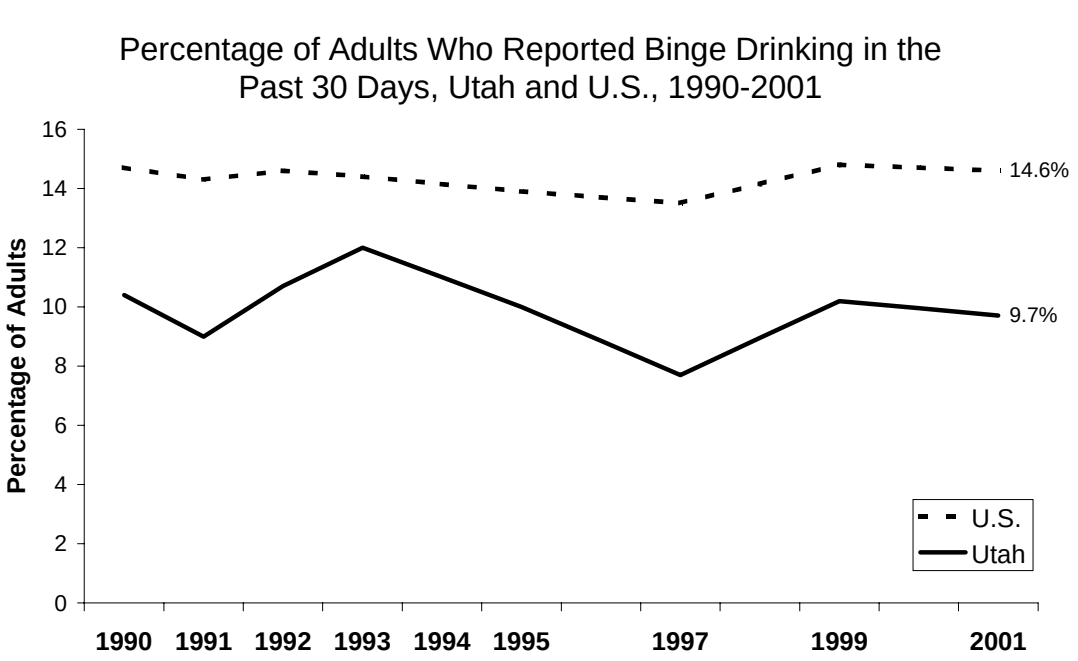
Note: Due to a low rate of in-home ETS exposure and an insufficient sample size no estimate could be calculated for Utah County Health District.

- It was estimated by the 2001 Utah Health Status Survey that 6% of children (43,500 Utah children) were exposed to environmental tobacco smoke by adults who smoked inside the home.
- Children who live in households with an annual income of less than $20,000 are more likely to be exposed to tobacco smoke in their homes than children who live in households with annual incomes of $45,000 or higher.
- Educational interventions and public policy to prevent children's exposure to tobacco smoke can lead to improved health and substantial savings in societal and health care costs.
- The "Truth About Tobacco" media campaign includes advertisements that educate Utahns about the dangers of environmental tobacco smoke. In addition, the Tobacco Prevention and Control Program and local partners provide information on environmental tobacco smoke and the Utah Indoor Clean Air Act through community outreach and outreach to health care providers.

Alcohol Consumption - Binge Drinking

Binge drinking is an indicator of potentially serious alcohol abuse, and is related to driving under the influence of alcohol. It is a problem nationally, especially among males and young adults. Alcohol abuse is strongly associated with injuries and violence, chronic liver disease, fetal alcohol syndrome, and risk of other acute and chronic health conditions. Binge drinking among women of childbearing age is a problem because of the risk for prenatal alcohol exposure. Birth defects associated with prenatal alcohol exposure can occur during the first 6 to 8 weeks of pregnancy.

HEALTHY PEOPLE 2010 OBJECTIVE 26-11C GOAL: BINGE DRINKING - ADULTS (AGES 18 YEARS AND OLDER) (6.00%). (SEE APPENDIX)



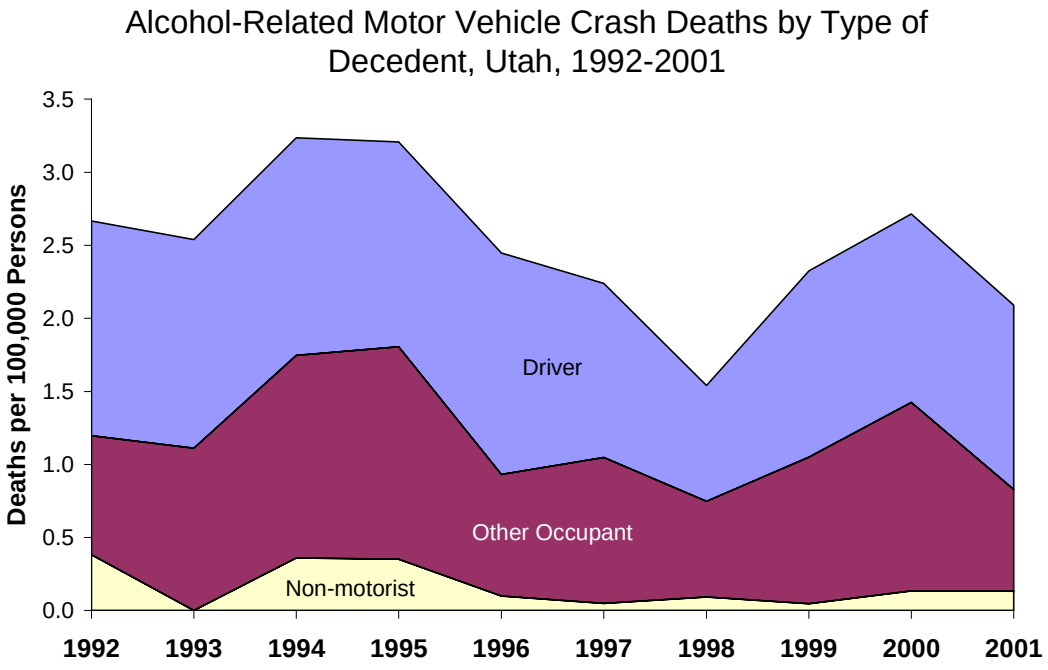
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

Note: Binge drinking is defined as consuming five or more drinks of alcohol on an occasion one or more times during the past 30 days. A drink of alcohol is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. This question was asked in the years 1990-1993, 1995, 1997, 1999 and 2001.

- In Utah, the percentage of adults who reported binge drinking in the past 30 days steadily decreased from 12% in 1989 to 9.7% in 2001. Utah still has a way to go to reach the Healthy People 2010 objective of 6%.
- The percentage of adults who reported binge drinking in the past 30 days was substantially lower in Utah than in the U.S. for all years reported between 1989-2001.
- Binge drinking is more common among males and young adults in Utah.
- Substance abuse services are provided by local county governments with administrative oversight and monitoring by the Utah Department of Human Services. Prevention programs are developed and implemented in cooperation with Utah's 13 Local Substance Abuse Authority districts and their local partners.
- DUI: The State of Utah has implemented Prime for Life, a program for convicted DUI drivers.

Alcohol-Related Motor Vehicle Crash Deaths

Motor vehicle crash deaths were the leading cause of injury death in Utah. Alcohol is a factor in over one fourth of all motor vehicle crashes.



Source: Intermountain Injury Control Research Center

Note: These numbers are based on the crash reports sent to UDOT by police officers who collect the data at the scene of the crash. Alcohol involvement was defined as a contributing factor of "had been drinking," "under the influence of drugs," or "DUI" or a violation code of "DUI driving under the influence." A fatality in this file is one that occurs within 30 days of the crash.

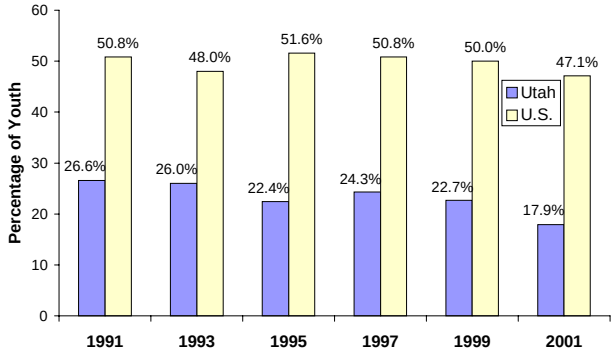
- During 1992-2001, 514 persons died in alcohol-related motor vehicle crashes.
- Younger drivers are at a greater risk of driving while intoxicated.
- Driving while intoxicated increases the risk of hospital inpatient and emergency department visits and death due to motor vehicle crash.
- The Utah Highway Patrol (UHP) has a special DUI unit that works with local law enforcement to conduct sobriety checkpoints and saturation patrols to identify and arrest drivers.
- A person's driving ability is affected by a Blood Alcohol Concentration (BAC) as low as .02%. The likelihood of a crash increases significantly over .05%. Alcohol is a contributing factor in 26.5% of Utah's motor vehicle crashes. When alcohol is involved, crashes tend to be more severe. As blood alcohol levels increase, balance, coordination, and reasoning ability worsen.

Substance Abuse - Adolescents

According to the U.S. Public Health Service, "Health risk behaviors that contribute to the leading causes of illness, death, and social problems among youth and adults often are established during youth, extend into adulthood, and are interrelated."[3]

Percentage of Students Who Used an Illegal Substance on One or More of the Past 30 Days, Utah and U.S.

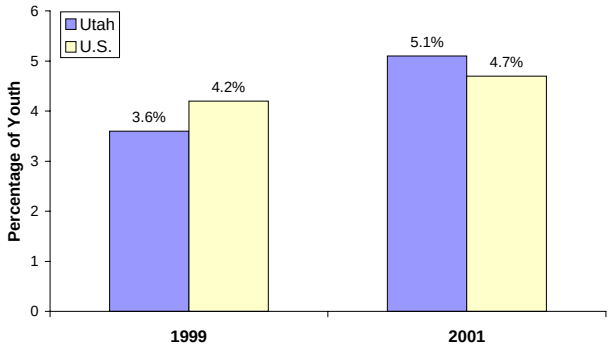
Alcohol, 1991-2001



Sources: Utah Youth Risk Behavior Surveillance System, Utah State Office of Education; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

Note: High school students only. Alcohol use was defined as at least one drink of alcohol.

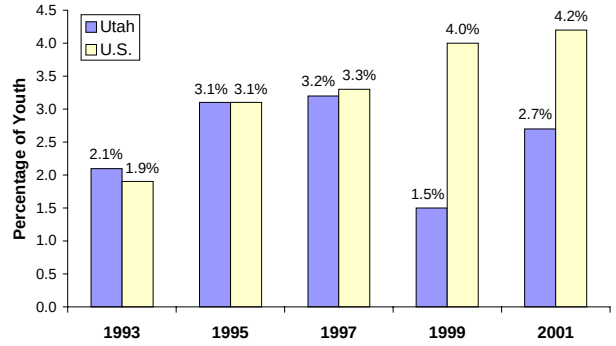
Inhalants, 1999 and 2001



Sources: Utah Youth Risk Behavior Surveillance System, Utah State Office of Education; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

Note: High school students only. Inhalant use was defined as sniffing glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times.

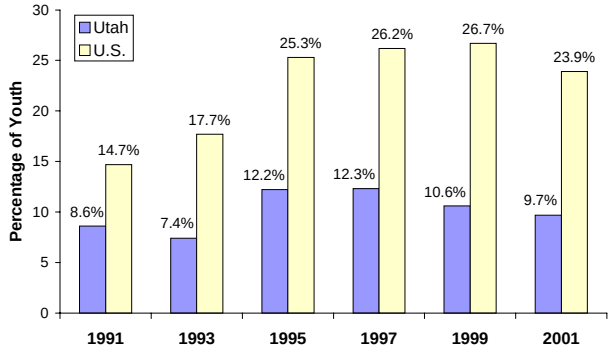
Cocaine, 1993-2001



Sources: Utah Youth Risk Behavior Surveillance System, Utah State Office of Education; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

Note: High school students only. Cocaine use was defined as any form of cocaine, including powder, crack, or freebase.

Marijuana, 1991-2001



Sources: Utah Youth Risk Behavior Surveillance System, Utah State Office of Education; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

Note: High school students only.

- The most commonly-abused substance among those measured here was alcohol (18%), followed by marijuana (10%), inhalants (5%), and cocaine (3%). While alcohol use was down from 27% in 1991, use of the other three substances has not shown any significant increase or decline.
- Utah's use rates among high school students for alcohol and marijuana are lower than those found in the U.S., but rates for use of cocaine and inhalants are similar to the U.S. use rates.
- While not all youth who abuse substances are necessarily at risk for suicide, youth who commit or attempt suicide are very commonly substance abusers.
- Prevention activities include involvement of parents and parent groups at the local level, increasing the number of adults volunteers involved in drug prevention at the local level and increasing the proportion of youth participating in positive skill-building activities."[20]

4. Common Preventable Diseases and Conditions

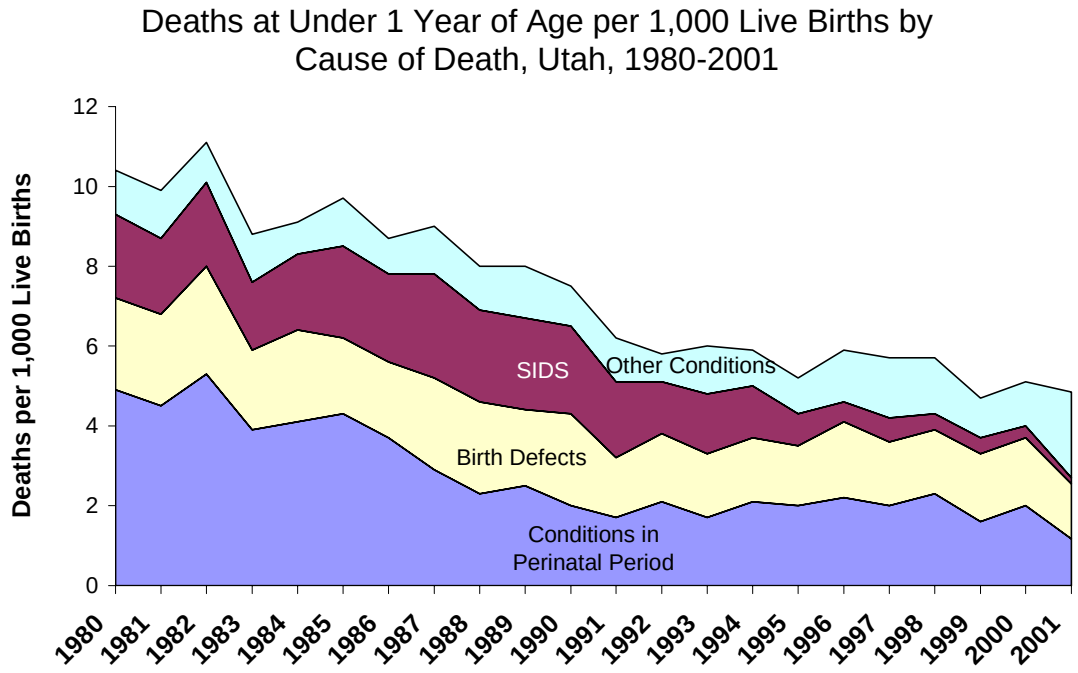
Goal: Utah will reduce illness, disability, and death from common preventable diseases and conditions.

A. Health Problems of Mothers and Infants
B. Infectious Diseases
C. Injury and Violence
D. Chronic Diseases and Conditions
E. Diseases Commonly Causing Death in Adults

Infant Mortality

Infant death is an important measure of a nation's health and a worldwide indicator of health status and social well-being. Three causes account for more than half of all infant deaths: birth defects, conditions in the perinatal period (includes disorders related to premature birth, overall maternal health, and access to quality primary health care for pregnant women), and SIDS. "Other conditions" includes deaths due to unintentional and intentional injuries. Infant mortality, when resulting from a complicated delivery, is associated with increased risk of maternal mortality.

HEALTHY PEOPLE 2010 OBJECTIVE 16-1C GOAL: ALL INFANT DEATHS (WITHIN 1 YEAR) (PER 1,000 LIVE BIRTHS) (4.5). (SEE APPENDIX)



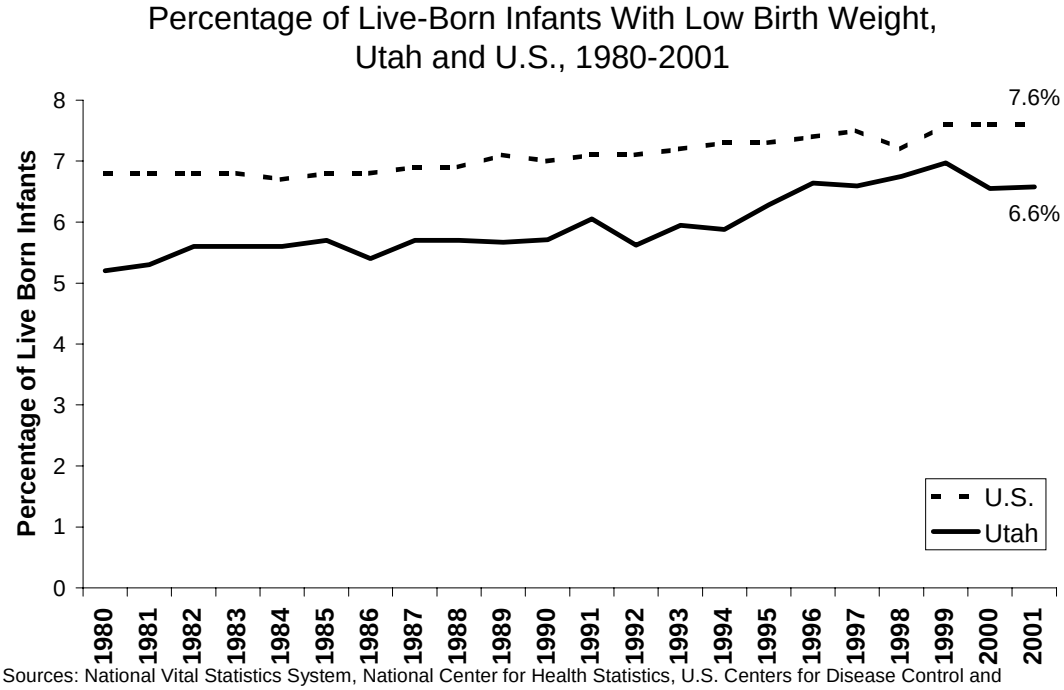
Source: Office of Vital Records and Statistics, Utah Department of Health
Note: Rates have been comparability-modified to be consistent with the ICD-10 definitions for cause of death.

- During 2001, 232 Utah infants died during their first year of life, each death representing a tragedy for parents, siblings, and other family members. The infant mortality rate has been declining throughout the past 20 years both locally and nationally. Despite this decline, the problem of infant mortality remains substantial. Populations in Utah whose rates far exceed the state average include Blacks and Native Americans (10.7 and 10.3 per 1,000 live births, respectively, 1996-1998).
- The UDOH Reproductive Health Program is currently: 1) reviewing available data and recommendations of the Perinatal Mortality Review Program to identify risk factors and develop interventions; 2) making health information available on-line to increase awareness of factors associated with infant death (i.e. the Indicator Based Information System (IBIS) database and the Reproductive Health Program website); 3) providing public education regarding danger signs during pregnancy and the importance of prompt action; 4) continuing education to promote the Back to Sleep Campaign and disseminate findings related to the reduction of SIDS and postneonatal deaths; and 5) educating prenatal health care providers to help pregnant clients cease smoking.

Low Birth Weight

Low birth weight increases the risk for infant mortality and morbidity. As birth weight decreases, the risk for death increases. Low birth weight infants who survive often require intensive care at birth, may develop chronic illnesses, and later may require special education services. Health care costs and length of hospital stay are higher for low birth weight infants. Utah data indicate that for infants weighing between 1,500 and 2,499 grams costs are six times higher, and almost 85 times higher for newborns with a birth weight less than 1,500 grams.

HEALTHY PEOPLE 2010 OBJECTIVE 16-10A GOAL: LOW BIRTH WEIGHT (LBW), INFANTS (LESS THAN 2,500 GRAMS) (5.00%). (SEE APPENDIX)



Sources: National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention; Office of Vital Records and Statistics, Utah Department of Health

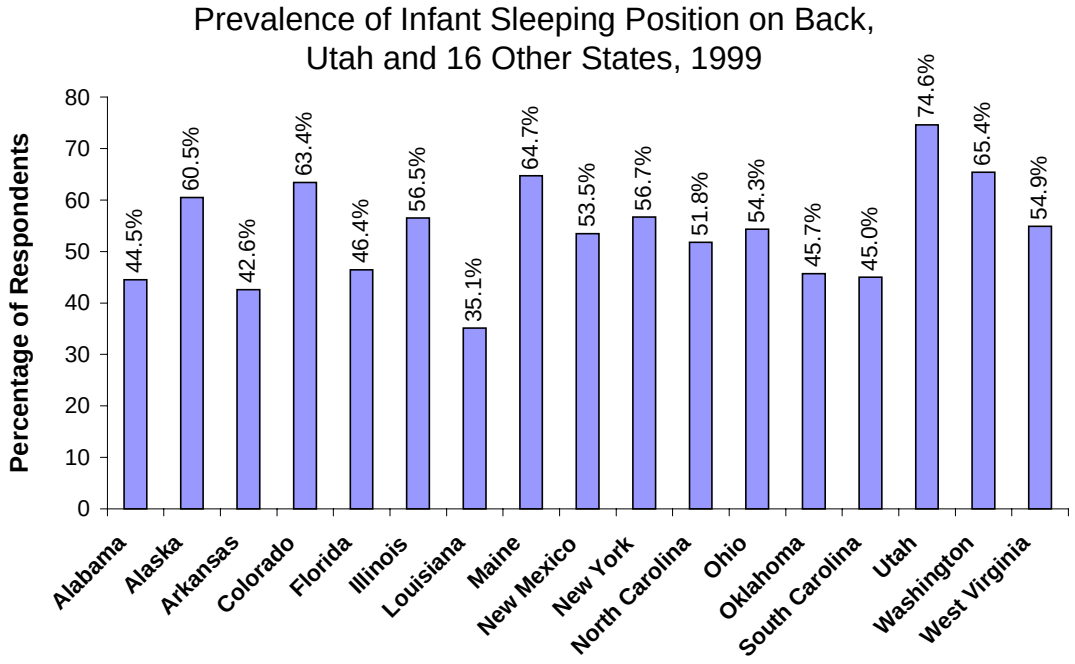
Note: Low birth weight is defined as less than 2,500 grams (about 5 pounds, 8 ounces).

- Utah's low birth weight percentage increased from 6.0% in 1991 to 6.6% in 2001, moving away from the Healthy People 2010 Objective of 5.0%. Nationally, the percentage of low birth weight births increased from 7.1% in 1991 to 7.6% in 2001. Utah's trend parallels this increase.
- Risk factors for low birth weight include: preterm births, maternal chronic disease, multiple gestation (i.e. twins), low pre-pregnancy weight, tobacco or alcohol use during pregnancy, lack of or inadequate prenatal care, short intervals between pregnancies, and previous pregnancy resulting in a low birth weight infant.
- All women should receive a thorough formal risk assessment at their initial prenatal visit, with updates and throughout pregnancy. Standards for assisted reproductive technology should be maintained to reduce the frequency of higher order multiple pregnancies. All women should be educated regarding the danger signs of pregnancy and the importance of fetal kick counts to facilitate early recognition of problems to permit earlier intervention, thereby improving pregnancy outcomes. Pregnant women also need appropriate referrals to services such as WIC and psychosocial counseling.

Backsleeping for Infants

Research has shown that placing babies on their backs to sleep greatly reduces their risk for sudden infant death syndrome (SIDS).

HEALTHY PEOPLE 2010 OBJECTIVE 16-13 GOAL: INFANTS PUT TO SLEEP ON THEIR BACKS (INFANTS AGED UNDER 1 YEAR) (70%). (SEE APPENDIX)



Source: Utah Pregnancy Risk Assessment Monitoring System (PRAMS), Utah Department of Health

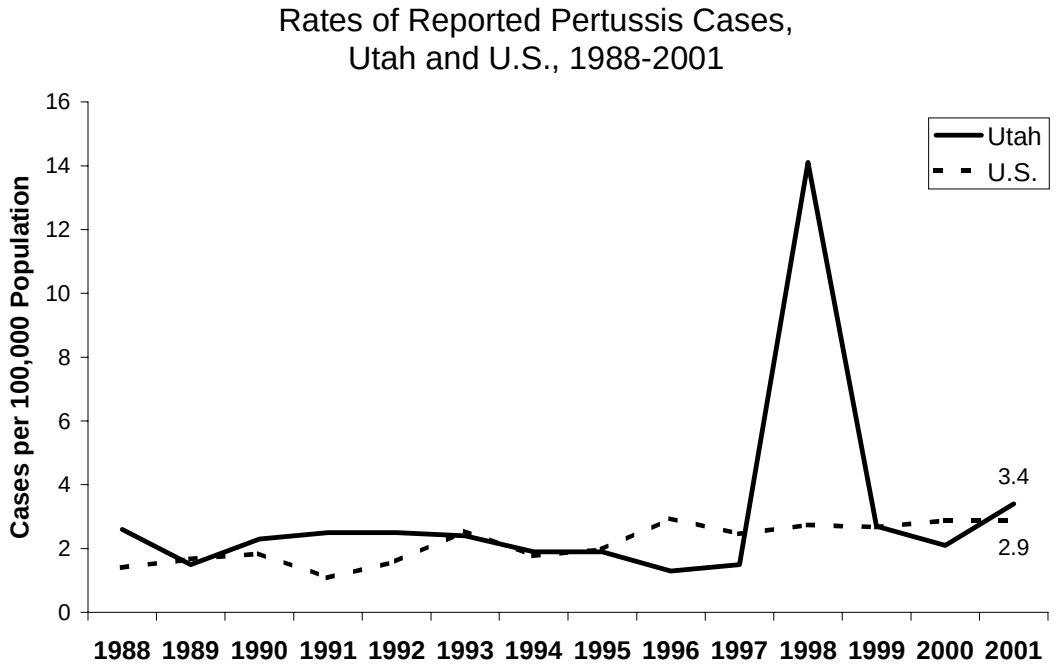
Note: New York data do not include New York City

- The majority of Utah infants are placed on their back to sleep. In 1999, Pregnancy Risk Assessment Monitoring System (PRAMS) data revealed that 74.6% of infants were sleeping on their backs.
- Out of the 17 states surveyed, Utah reported the highest prevalence of infants sleeping on their backs. Prevalence ranged from 35% (Louisiana) to 75% (Utah).
- Many hospitals provide SIDS/Back to Sleep information in newborn packets.
- Risk factors for SIDS include maternal smoking, environmental tobacco smoke, overheating/ overbundling, having soft items in baby's sleeping area, being male, being 2-4-months of age.
- Infant deaths from SIDS have significantly declined since 1992-1993 (106 deaths). There were 24 deaths in 2000-2001, with 7 of those in 2001.
- Since the Back to Sleep Campaign began in 1994, encouraging caregivers to place their babies on their backs to sleep, the rate of SIDS deaths has dropped over 40% in the United States.

Pertussis Cases

Pertussis is a contagious, bacterial respiratory disease. Although pertussis may be a mild disease in older children and adults, in younger children this disease can be complicated by pneumonia and occasionally inflammation of the brain. Although not common (1 out of 200), pertussis can cause death (especially in children less than one year of age). In the 20th century, pertussis was one of the most common childhood diseases and a major cause of childhood mortality in the United States. Since widespread use of the vaccine began, incidence has decreased.

Healthy People 2010 Objective 14-1g Goal: Vaccine-preventable diseases - Pertussis Children (number of cases, children aged under 7 years) (2,000 total cases in the U.S.). (See Appendix)



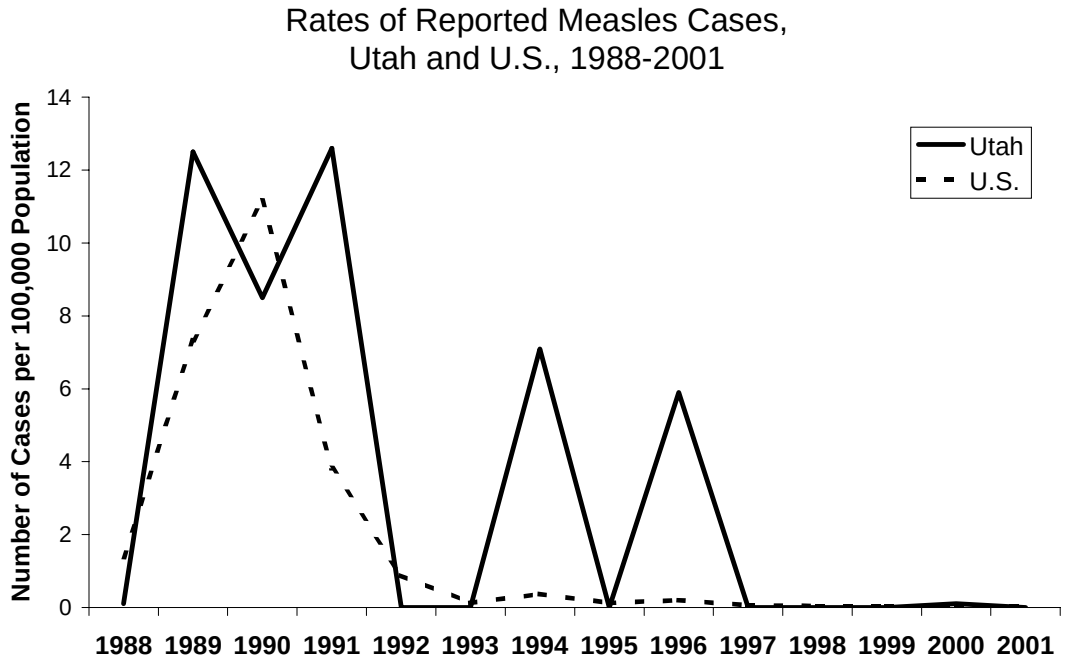
Source: Utah Department of Health, Office of Epidemiology

- In 1998, Utah experienced a statewide outbreak with an incidence rate more than five times that of the U.S. Rates of pertussis infection have been similar in Utah and the U.S., with the exception of 1998.
- Pertussis affects all populations. Adults generally have milder symptoms often without the characteristic “whoop,” so they are often not reported. However, adult pertussis cases are often not recognized and cn be an important source of spread.
- Surveillance data are used to identify persons or areas in which additional efforts are required to reduce disease incidence. Surveillance data help to promptly identify outbreaks in which immunization and prophylaxis of contacts can help limit the spread of disease. Surveillance data are also used in evaluating vaccination policies at the state level.
- Childhood immunization is the most effective weapon against childhood diseases. The UDOH immunization program works with parents, physicians, and local health departments to provide immunization histories for all children under age two and remind parents when vaccinations are due.

Measles Cases

Measles is caused by a virus and is a very infectious disease that can be particularly serious in infants and adults. Although measles usually lasts only one to two weeks, it can cause such complications as pneumonia, ear infections, and encephalitis (inflammation of the brain). In very young or malnourished patients, blindness can occur. The U.S. has established the goal of eliminating the transmission of endemic measles strains. Current surveillance data indicate this goal has been achieved.

Healthy People 2010 Objective 14-1e Goal: Vaccine-preventable diseases - Measles (number of cases) (0). (See Appendix)



Source: Utah Department of Health, Office of Epidemiology

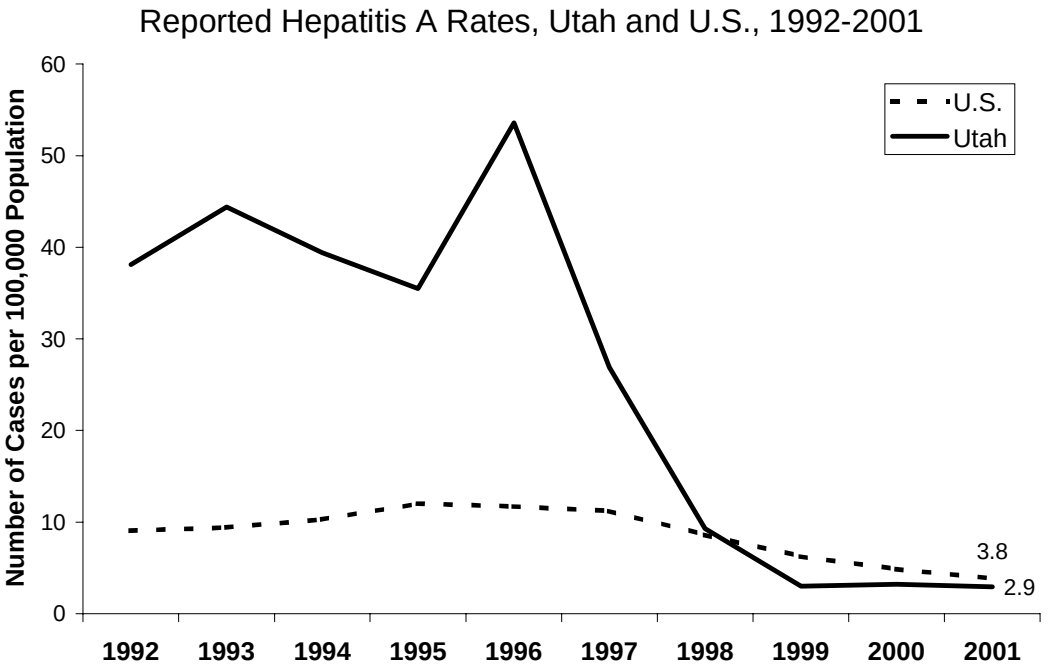
- Before measles vaccine was introduced in 1963, more than one half million cases of measles were reported annually in the U.S. Since then measles incidence has steadily decreased. The recent low rates of infection in Utah can be attributed both to improved immunization rates, as well as the natural cyclical nature of the disease. Since 1998, Utah has had lower rates than the U.S. with only three confirmed cases being reported.
- Persons coming from other countries frequently import the highly contagious measles virus into the U.S. Each imported measles case could start an outbreak, especially if under-vaccinated groups are exposed. Surveillance and prompt investigation of cases and contacts help in halting the spread of disease.
- Per Communicable Disease Rule R386-702-3, health care providers and laboratories are required to report suspected cases of measles immediately by telephone to the Office of Epidemiology or the local health department. The Office of Epidemiology assists local health departments with the investigation of cases and implementation of control measures to prevent further cases. The Office of Epidemiology conducts ongoing statewide surveillance of measles cases.

Hepatitis A

Hepatitis A is the most common type of hepatitis reported in the United States. Utah was identified as one of 11 states with average annual disease rates at least twice the national average during 1987-1997.

Surveillance data are used to detect outbreaks, determine the effectiveness of hepatitis A vaccination, monitor disease incidence in all age groups, determine the epidemiologic characteristics of infected persons including source of infection, and assess and reduce missed opportunities for vaccination.

HEALTHY PEOPLE 2010 OBJECTIVE 14-6 GOAL: HEPATITIS A - (NEW CASES PER 100,000 POPULATION) (4.5). (SEE APPENDIX)



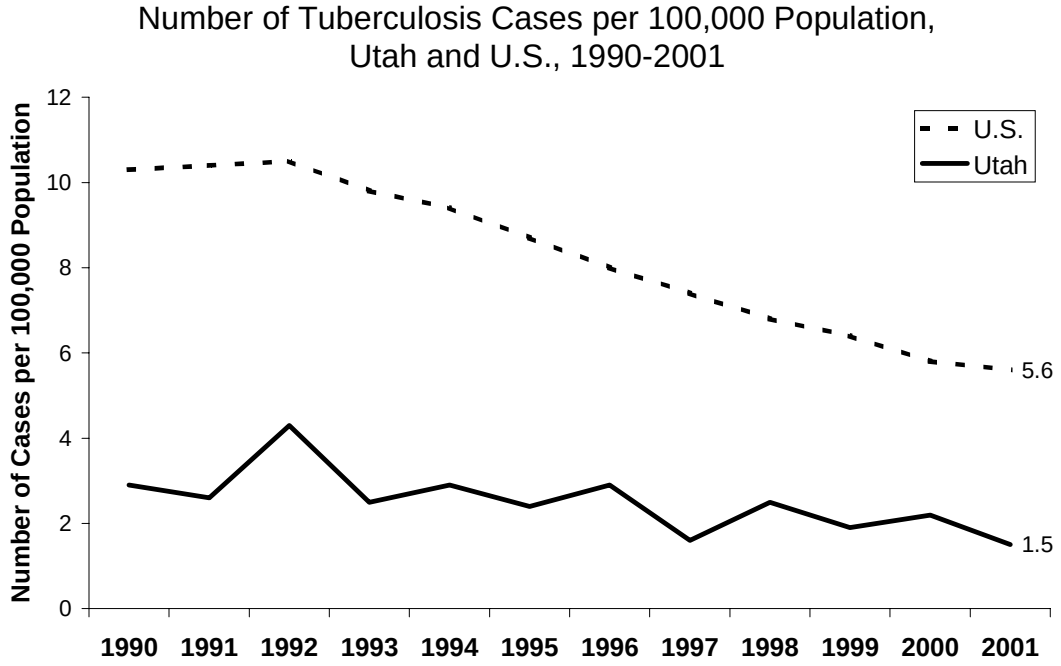
Sources: Utah Department of Health, Office of Epidemiology, Centers for Disease Control and Prevention (CDC)

- Since 1997, the incidence of hepatitis A in Utah has decreased, and recent average annual rates have been lower than the national average. Most cases of hepatitis A are due to person-to-person transmission.
- The decline in hepatitis A cases is most likely due to better hygiene (especially hand washing and food preparation), broader use of the new hepatitis A vaccine, but it may also be due to the natural cycle of the disease.
- Per Communicable Disease Rule R386-702-3, health care providers and laboratories are required to report suspected cases of hepatitis A immediately by telephone to the Office of Epidemiology or the local health department. The Office of Epidemiology assists local health departments with the investigation of cases and implementation of control measures to prevent further cases. The Office of Epidemiology conducts ongoing statewide surveillance of hepatitis A cases.

Tuberculosis Cases

Tuberculosis (TB) is caused by a type of bacteria called Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but they may attack any part of the body. Early detection and treatment are essential. TB is typically spread through the air from one person to another. Some people may have what is known as latent TB. Some people with latent TB may later develop active TB.*

HEALTHY PEOPLE 2010 OBJECTIVE 14-11 GOAL: TUBERCULOSIS - (NEW CASES PER 100,000 POPULATION) (1). (SEE APPENDIX)

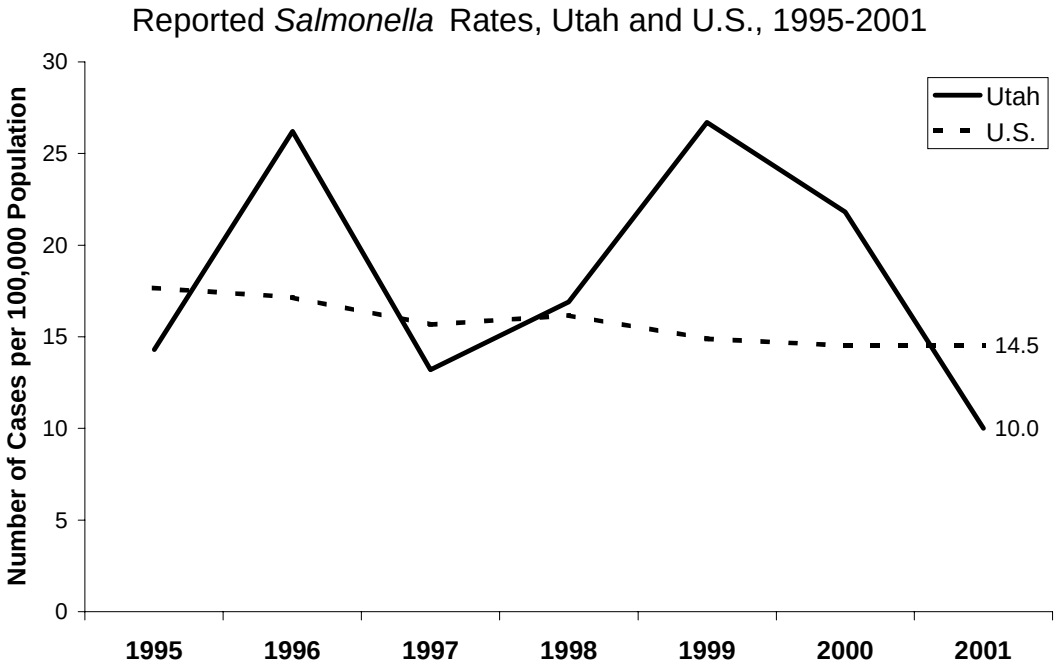


Sources: Bureau of Communicable Disease Control, Utah Department of Health; National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention

- The 2001 TB case rate was 1.5 per 100,000 persons, a decrease from 1.9 per 100,000 persons in 2000. Males accounted for more of Utah's tuberculosis morbidity than females. The case rate of tuberculosis in Utah has consistently been about one third of that found in the U.S. overall.
- In the years 1998-2001, half or more of the persons diagnosed with TB in Utah were born outside of the U.S. This shows the importance of effectively screening and treating individuals from high TB prevalence areas. Other risk factors include: injecting drug use, homelessness, and HIV infection. A growing area of concern in Utah for TB control is the increasing number of dialysis patients with active TB disease.
- It is very important that patients with active tuberculosis disease adhere to their treatment regimen. Treatment adherence is not only important for effective therapy in patients, but also to prevent an increase in cases of drug-resistant *Mycobacterium tuberculosis*. Directly observed therapy (DOT) ensures that all TB patients take all their medications.
- The Tuberculosis and Refugee Health Program at the Utah Department of Health is charged with reducing the incidence of active TB through timely reporting and treatment. There are 12 local health departments throughout Utah that are the front line of TB case management for the state.

Food-borne Illness - *Salmonella*

Salmonella *are bacteria which cause an infection primarily in the stomach and intestines. About 2,000 types of* Salmonella *have been identified. Infections may enter the blood stream and become very serious. The infection is acquired by eating or drinking food containing the bacteria. It can also be spread by direct contact with an infected person or animal.* Salmonella *bacteria are commonly found in food products such as eggs, egg products, meats, poultry, unpasteurized milk, other unpasteurized dairy products, and cheese. Domestic animals including chickens, cattle, pigs, ducks, and reptiles have been found to carry the bacteria.*

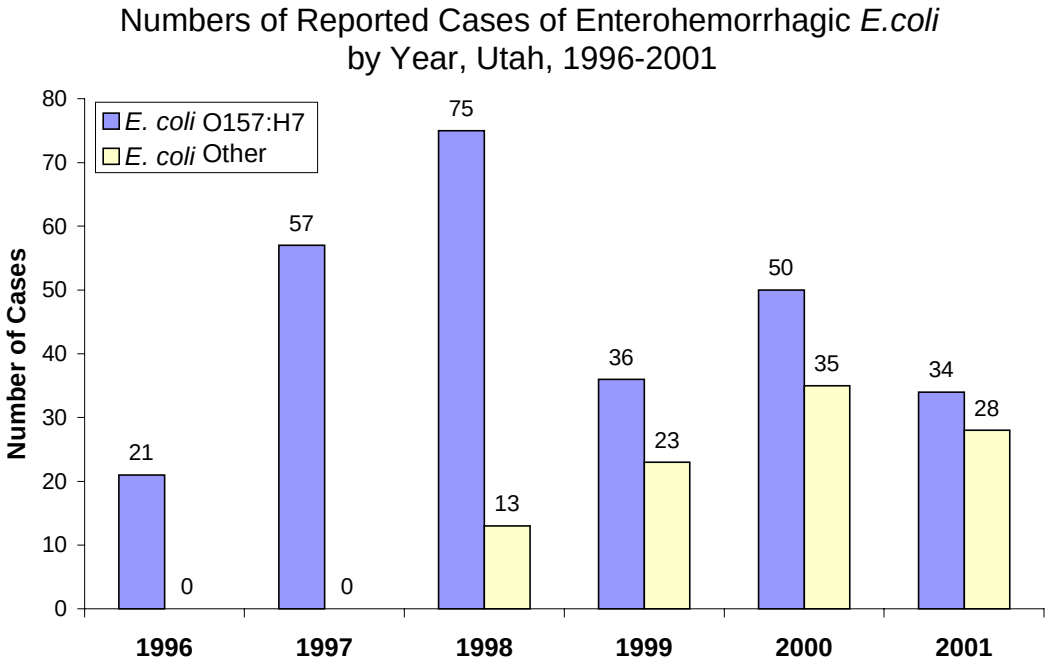


Sources: Utah Department of Health, Office of Epidemiology; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); National Center for Health Statistics

- Reported rates of *Salmonella* infection decreased from 26.7 cases per 100,000 in 1999 to 10.0 in 2001. Much of this decrease is attributed to improved food handling practices, especially involving egg products.
- The Office of Epidemiology assists local health departments with the investigation of cases and implementation of control measures to prevent further cases. Some general guidelines to prevent the spread of *Salmonella* are:
    - Always refrigerate meat and eggs.
    - Always cook meats completely (no pink in the middle) and never eat raw meat.
    - Always cook eggs and food containing raw eggs completely. Never eat dough or batter that contain raw eggs.
    - Avoid using unpasteurized milk or juices.
    - Carefully wash hands before and after preparing food.
    - Always wash hands with soap and warm water after using the toilet, changing diapers, or after playing with your pet.

Food-borne Illness - *E. coli*

E. coli *are bacteria that normally live in the intestines of humans and animals. Although most strains of these bacteria are harmless, some strains can cause serious illness. These infections are acquired by eating food containing the bacteria. The bacteria live in the intestines of some healthy cattle, and contamination of the meat can occur in the slaughtering process. Eating meat, especially ground beef that has been inadequately cooked, is the most common way of getting the infection. Other possible sources of infection include unpasteurized milk and juice, drinking or swimming in water that is contaminated with sewage, or eating unwashed fruits or vegetables.*



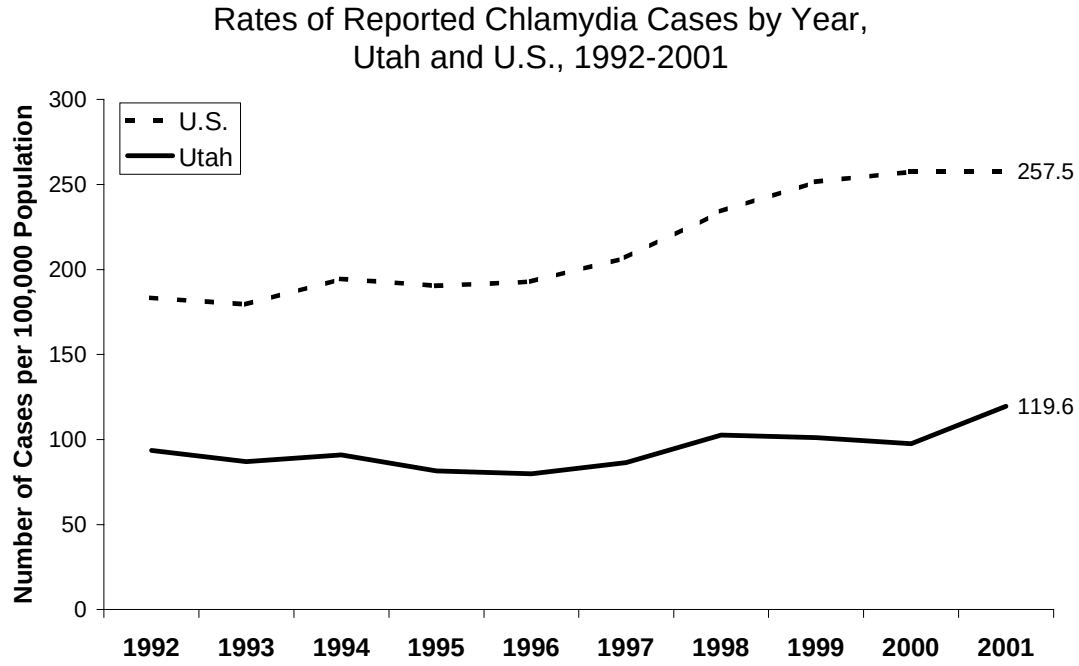
Sources: Bureau of Food Safety and Environmental Health, Division of Epidemiology and Laboratory Services, Utah Department of Health; Utah Department of Health, Office of Epidemiology

Note: The Utah Department of Health did not track non-O157:H7 *E. coli* prior to 1998.

- *E. coli* O157:H7 was first reported in Utah in 1990 with only six cases. Cases have increased since then due to increased reporting and better laboratory methods for detection. All age groups can be infected with *E. coli*, but young children, the elderly, and those with compromised immune systems are the most severely affected.
- The following will help in stopping the spread of *E. coli*:
  - Always refrigerate meat products. Never leave raw meat at room temperature.
  - Ground beef should be packaged and stored so that its juices (blood) do not drip onto other foods.
  - Do not contaminate other foods by placing them on the same platter or surface that held raw meat or by using utensils which have been contaminated by raw meat.
  - Always cook meats completely (no pink in the middle) and the juices run clear.
  - Avoid using unpasteurized milk or juices.
  - Carefully wash hands before and after preparing food.
  - Always wash hands with soap and warm water after using the toilet or changing diapers.

Chlamydia Cases

Two thirds of all sexually transmitted diseases (STDs) occur among the age group of 15-25 years in the U.S. This is evident in Utah as well with 73% of chlamydia cases being among those between 15 and 24 years of age. Untreated chlamydia infections can damage the reproductive systems of both males and females. Females with chlamydia infection are at risk for developing pelvic inflammatory disease (PID) and both men and women may become infertile as a result of chlamydia infections. Susceptibility to more serious diseases such as HIV also increase when an individual is infected with chlamydia.



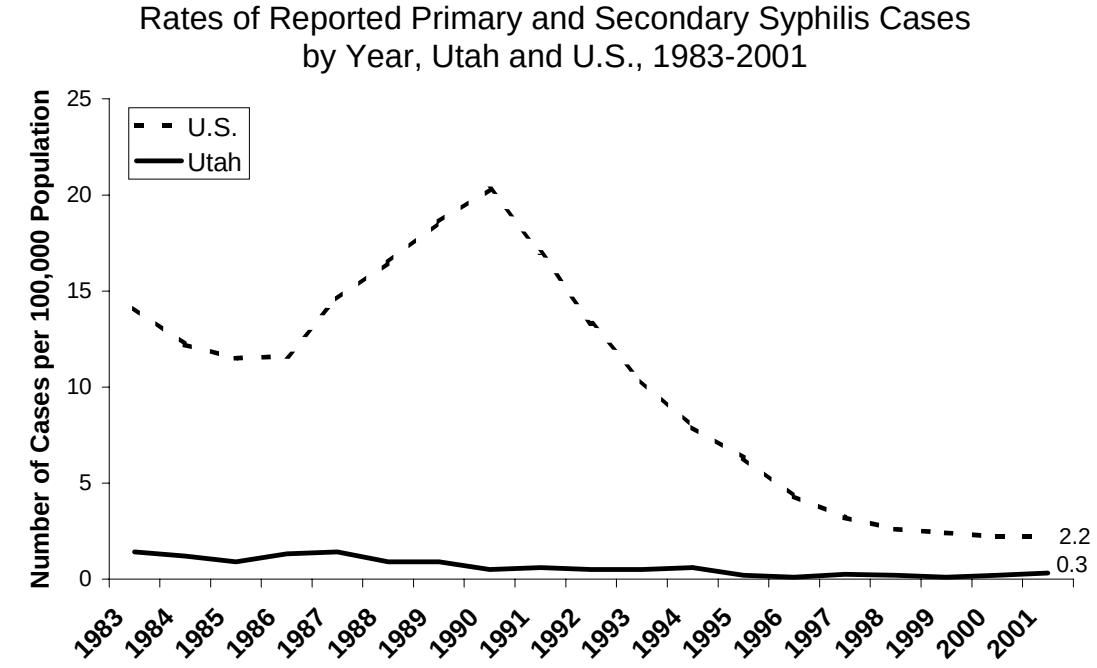
Sources: Bureau of Communicable Disease Control, Utah Department of Health; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC);

- The overall rate in 2001 for chlamydia in the U.S. was 257.5 cases per 100,000 persons; the Utah chlamydia incidence rate was lower than the U.S. rate at 119.6 cases per 100,000 persons. Age and gender specific rates were lower for Utah in comparison to the U.S. rates. The incidence rate for females age 15-19 years in Utah was 659.0 cases per 100,000 compared with 2,406 cases per 100,000 in the U.S. The incidence rate for males age 15-19 years in Utah was 115.0 compared with 348.5 cases per 100,000 persons in the U.S.
- Persons who test positive for chlamydia are confidentially interviewed by a local public health nurse to educate the patient, ensure proper treatment, and to obtain sexual partner information for follow up. This process helps prevent reported cases from spreading disease and the patient becoming reinfected.
- The Utah Department of Health STD Control program along with selected local health departments currently provide STD presentations upon request to adolescents in schools and other adolescent facilities. Presentations given in high schools require prior permission from the school principal and some schools require a permission note from the parents.
- Fact sheets for food-borne and other communicable diseases may be found on the Office of Epidemiology website (http://health.utah.gov/els/epidemiology)

Syphilis Cases - Primary and Secondary

Syphilis is a complex sexually transmitted disease (STD) caused by the bacterium Treponema pallidum*. Syphilis is passed from person to person through direct contact with a syphilis sore. In later stages of the disease, the bacteria move throughout the body, damaging many organs over time. While the health problems caused by syphilis in adults and newborns are serious in their own right, it is now known that the genital sores caused by syphilis in adults also make it easier to transmit and acquire HIV infection sexually. There is a 2- to 5-fold increased risk of acquiring HIV infection when syphilis is present.*

HEALTHY PEOPLE 2010 OBJECTIVE 25-3 GOAL: PRIMARY AND SECONDARY SYPHILIS - TRANSMISSION OF (PER 100,000 POPULATION) (0.2). (SEE APPENDIX)



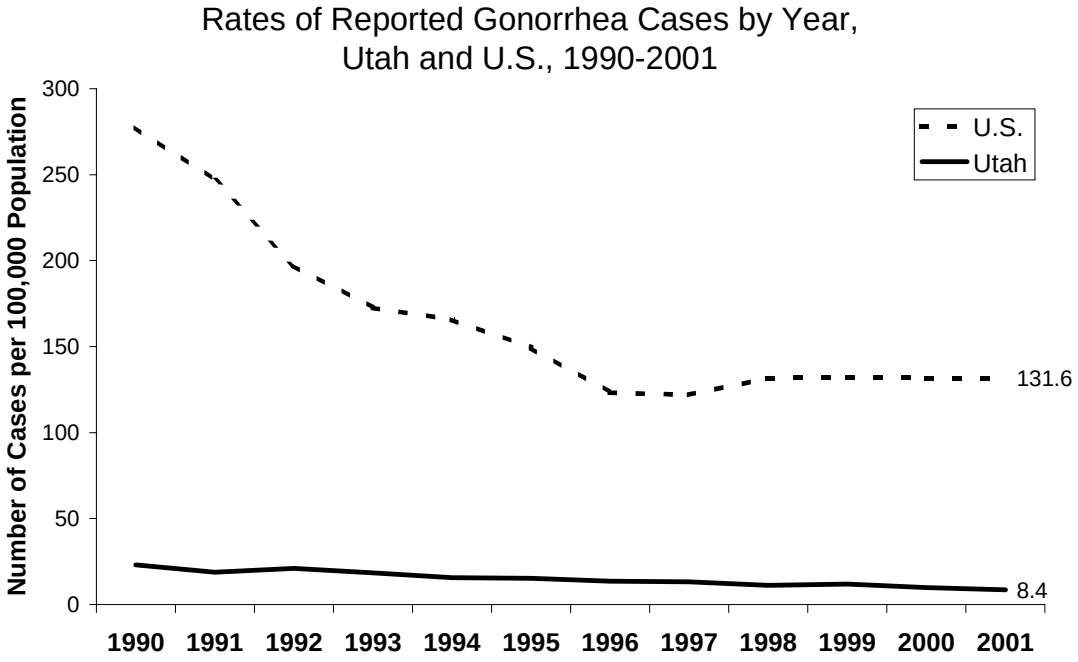
Sources: Bureau of Communicable Disease Control, Utah Department of Health; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC)

- The overall rate for primary and secondary syphilis in 2000 for the U.S. was 2.2 cases per 100,000 persons, the Utah incidence rate was 0.2 cases per 100,000 persons.
- Public health education measures are crucial in preventing syphilis. The Utah Department of Health STD Control Program along with select local health departments currently provide STD presentations upon request to adolescents in schools and other adolescent facilities.
- Persons who test positive for syphilis are confidentially interviewed by a local public health nurse to educate the patient, ensure proper treatment, and to obtain sexual partner information for follow up. Another project screens high risk adolescent females in detention centers, homeless clinics, and drug treatment centers. Education is also provided.

Gonorrhea Cases

Untreated gonorrhea infections can damage the reproductive systems of both males and females. Females with gonorrhea are at risk for developing pelvic inflammatory disease (PID). Both men and women may become infertile as a result of gonorrhea infections. Susceptibility to more serious diseases such as HIV also increase when an individual is infected with gonorrhea.

HEALTHY PEOPLE 2010 OBJECTIVE 25-2 GOAL: GONORRHEA - NEW CASES (PER 100,000 POPULATION) (19). (SEE APPENDIX)

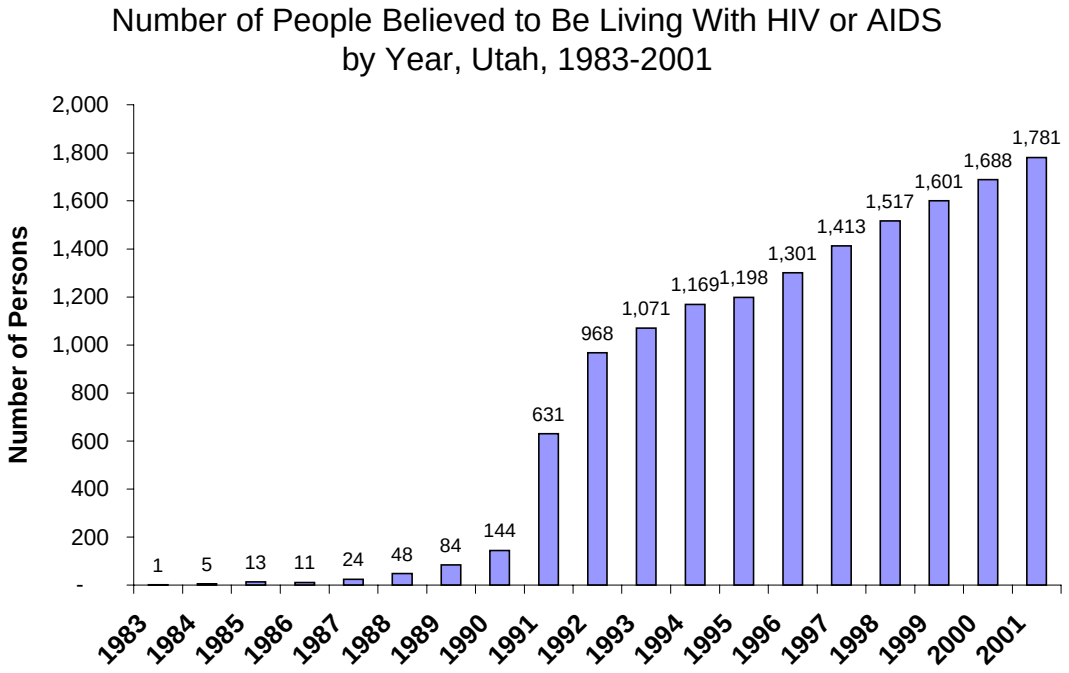


Sources: Bureau of Communicable Disease Control, Utah Department of Health; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC);

- The overall U.S. rate for gonorrhea in 2000 was 131.4 cases per 100,000 persons, the Utah gonorrhea incidence rate 9.8 cases per 100,000 persons.
- Persons who test positive for gonorrhea are confidentially interviewed by a local public health nurse to educate the patient, ensure proper treatment, and to obtain sexual partner information for follow up.
- The Utah Department of Health STD Control program along with select local health departments currently provide STD presentations upon request to adolescents in schools and other adolescent facilities. Presentations given in high schools require prior permission from the schools principal and some schools require a permission note from the parents.
- The Utah Department of Health STD Control Program is currently conducting a project entitled the Adolescent Women's Reproductive Health Monitoring Project. This project entails screening high risk adolescent females in detention centers, homeless clinics, and drug treatment centers. A survey is conducted along with the screening at the various sites. Education is also provided.

HIV and AIDS

HIV is a blood-borne virus. Transmission occurs primarily through sexual contact with an infected person, sharing needles for the injection of drugs, or before, during, or after the birth of children of HIV-infected mothers. No treatment is available to cure AIDS, although antimicrobial and anti-retroviral treatments now available extend survival among those who are infected with human immunodeficiency virus (HIV).



Source: HIV/AIDS Surveillance Program, Utah Department of Health

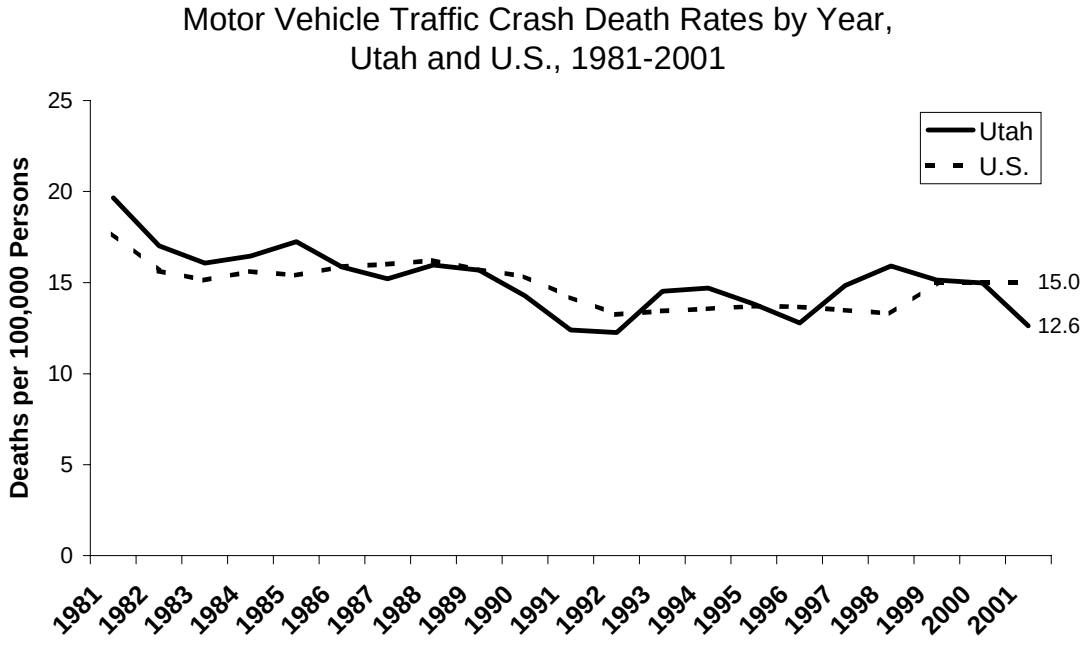
Note: The number presumed living indicates the number of people reported and believed alive at the end of each year; these are cumulative numbers and shouldn't be added.

- A cumulative total of 2,063 AIDS cases had been reported in Utah as of December 31, 2001. A total of 983 (48%) of Utahns with AIDS had died. A cumulative total of 716 HIV-positive individuals who had not progressed to AIDS had been documented.
- The Bureau of Communicable Disease Control and the HIV/AIDS Surveillance Program has the responsibility for tracking HIV/AIDS in order to monitor trends in the disease and whenever possible to interrupt the transmission of HIV.
- AIDS-related deaths have been decreasing, primarily because of improved efficacy of combination anti-retroviral therapies. This trend has led to an increased number of people living with HIV disease in Utah, thus placing an added burden on health care systems and increasing the need for HIV prevention programs.
- Community-based prevention efforts include:
  - Encouraging safer sexual practices.
  - Encouraging drug users to get treatment to stop using drugs and teach them harm reduction.
  - Encouraging pregnant women or women considering pregnancy to be tested for HIV.

Motor Vehicle Traffic Crash Deaths

Motor vehicle crashes (MVCs) are the leading cause of injury death, and the leading cause of death among ages 0-24 years. From 1997 to 2001, motor vehicle crashes accounted for an average of 348 deaths annually. In addition, each year over 30,000 people in Utah are injured and over $30 million are spent on inpatient hospitalizations from MVCs in Utah.

HEALTHY PEOPLE 2010 OBJECTIVE 15-15A GOAL: DEATHS FROM MOTOR VEHICLE CRASHES - (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (9.2). (SEE APPENDIX)



Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Note: Data have been age-adjusted to U.S. 2000 standard population.; ICD-9 codes E810-E819.

- In 2001, Utah saw 12.6 MVC deaths per 100,000 persons, compared to the national rate of 15.0 MVC deaths per 100,000 persons.
- Motor vehicle crash deaths are highest among people aged 15-24 years and 65 years and older. Graduated driver's licensing requirements were put in place in 1998 to assist teenage drivers in developing responsible driving behaviors.
- The most important factors contributing to motor vehicle crash injuries are failure to use seat belts, excessive speed, and driving under the influence of alcohol or drugs. The Utah Legislature has passed a variety of laws to promote safety belt use. Utah Highway Safety Office conducts an annual safety belt observational survey to determine safety belt use for Utah. Overall, safety belt use in Utah for 2001 was 78%.
- Legislation has been passed to support the decrease of drunk driving crashes. Law enforcement agencies throughout the state enforce traffic safety laws. Transportation agencies also assist with safe driving through the design and construction of safer roadways.

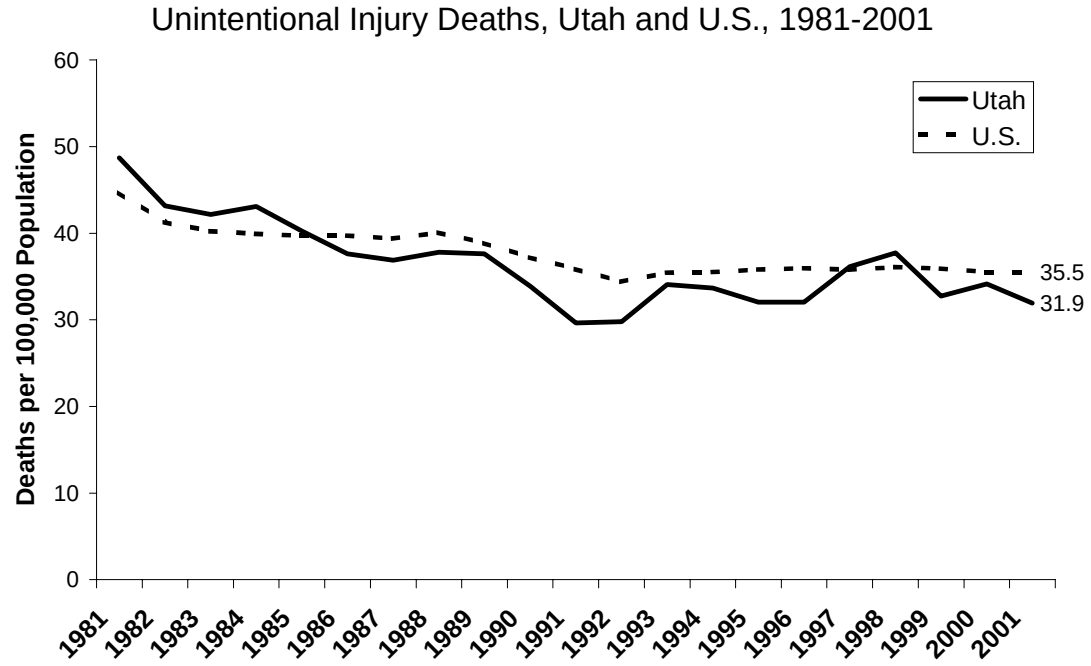
Unintentional Injury Deaths

Most injuries can be prevented by choosing safe behaviors, using safety equipment, and obeying safety laws. High prevention priority areas include: motor vehicle crash injury, pedestrian injury, bicycle injury, and fall-related injury.

In Utah, unintentional injuries (commonly called accidents) are a leading cause of death and disability. They account for approximately 570 deaths and 8,000 hospitalizations each year. In addition, thousands of less severe injuries are being treated in doctor's offices, clinics, emergency rooms, homes, schools, work sites, etc.

Injuries affect all ages and their consequences are tragic to the victim, family, friends, and community. Thousands of dollars are spent, pain and suffering is endured, and lives are changed forever. The real tragedy of these injuries is that they are preventable.

HEALTHY PEOPLE 2010 OBJECTIVE 15-13 GOAL: DEATHS FROM UNINTENTIONAL INJURIES - (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (17.5). (SEE APPENDIX)



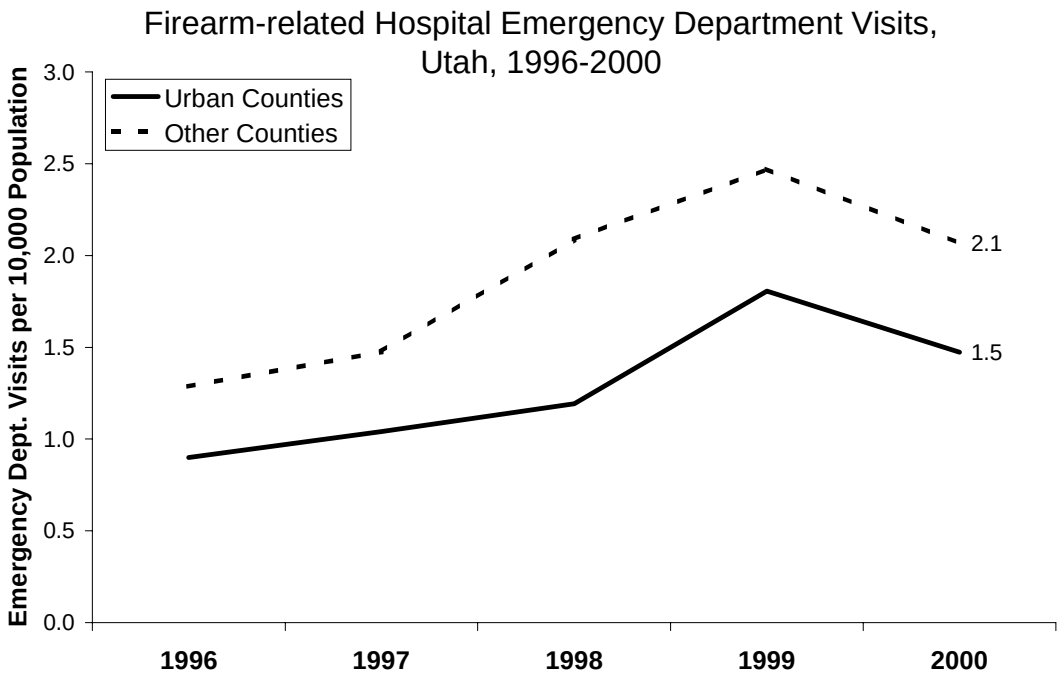
Sources: Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER
Note: ICD-9 Codes E800-E869, E880-E929. ICD-10 Codes V01-X59, Y85-Y86.
Age-adjusted to U.S. 2000 standard population.

- Utah's annual rate of unintentional injury deaths has declined from 49.8 per 100,000 persons in 1980 to 31.9 per 100,000 persons in 2001. Increased efforts in public awareness, strengthening prevention activities, establishing resources, and developing collaborations with various state and local agencies have all contributed to the decline.
- Utah's unintentional injury death rate has declined over the last 20 years. Currently, Utah has a slightly lower death rate due to unintentional injuries than the U.S. However, this has not always been the case.

Firearm-related Emergency Department Visits

Firearm-related injuries account for over 200 deaths each year in Utah. Most of these firearm deaths are due to suicide.

Healthy People 2010 Objective 15-5 Goal: Nonfatal firearm-related injuries (per 100,000 population) (8.6). (See Appendix)



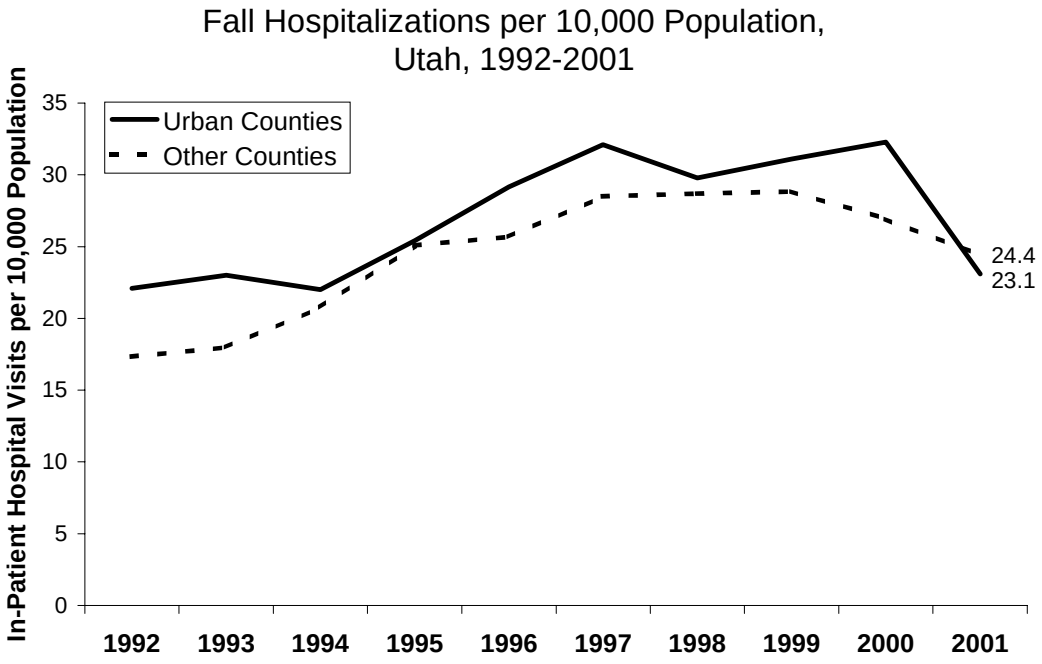
Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health

Note: Age-adjusted to U.S. 2000 population; Urban Counties include Salt Lake, Davis, Weber, and Utah Counties.; E922, E955, E965.0-E965.4, E968.6, E970, E985.0-E985.4

- More than 200 people are killed by firearms each year in Utah. During 1996-1998, firearms killed 656 people in Utah; 82% of all firearms deaths were suicide, 87% of firearm suicides among males. Of suicides committed by Utah adolescents age 15-19 years, 83% are committed with a firearm.
- Appropriate locked and unloaded storage of firearms could help prevent firearm-related injuries by reducing availability and access to guns. The following recommendations are cited in a policy statement by the American Academy of Pediatrics published in April 2000:
    1. Firearm-related injuries are often fatal; since most deaths of children occur before their arrival at the hospital, primary prevention is essential.
    2. Suicide completion rises if guns are used; therefore, youth access to guns must be restricted.
    3. Access to guns increases the number of conflict-related deaths and injuries.
    4. Youth access to guns creates a risk for serious unintentional injury and death.
    5. Most firearm-related injuries and deaths of children and adolescents involve a handgun.
- Education programs, such as “Gunwise” are conducted by local health departments, Primary Childrens’ Medical Center, the Division of Wildlife Resources, and others to make parents aware that they must accept personal responsibility for proper storage of guns in their homes.

Fall Injury Hospitalizations

Falls are the most common cause of injury hospitalization and the second leading cause of unintentional injury death. Persons 65 years of age and older account for a disproportionate number of these deaths.



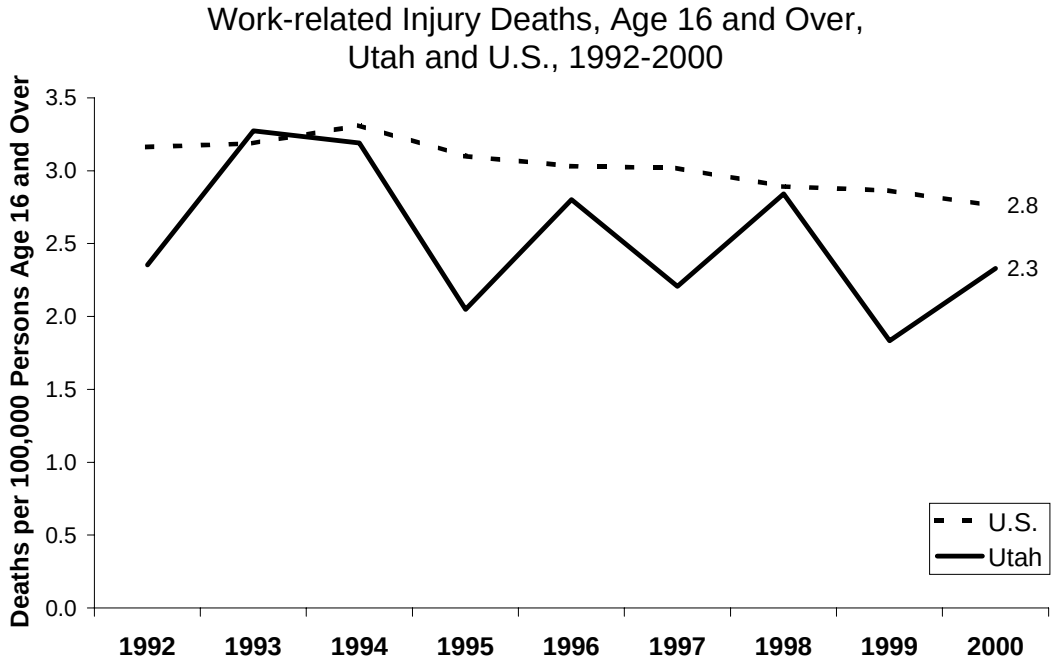
Source: Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health

Note: Age-adjusted to U.S. 2000 population; Urban Counties include Salt Lake, Davis, Weber, and Utah Counties.; ICD-9 codes E880-E888.

- During 2001, there were 93 fall-related deaths and 5,371 hospitalizations in Utah. Over 60% of these were among people aged 65 years and older (73 deaths; 3,335 hospitalizations).
- Several local health departments have implemented fall prevention programs. Those programs are multifaceted and attempt to prevent falls among the young and the elderly.
- The UDOH Violence and Injury Prevention Program provides consultation and assistance to local health departments that are developing fall prevention programs and has developed resource manuals for them.

Work-related Injury Deaths

Work-related injuries and illnesses continue to place an enormous burden on U.S. workers and the economy. In 1993, work-related injuries cost $121 billion in medical care, lost productivity, and wages. Efforts to reduce occupational injuries are often successful and cost-effective.



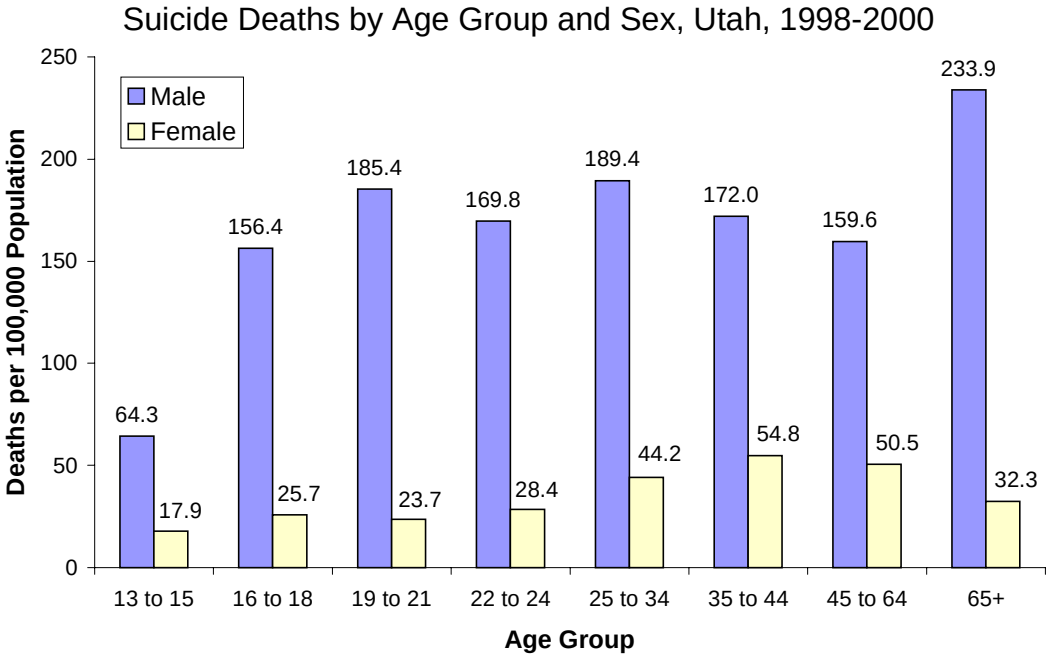
Sources: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Bureau of the Census; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget
Note: ICD-9 codes 800-949, age 16+ and injury occurred at work.; U.S. 2000 data are preliminary.

- Work-related injuries are an important cause of unintentional injury deaths. About 50 Utahns die each year from a work-related injury. The work-related injury death rate has changed little in recent years.
- The Utah Department of Health Office of Epidemiology recently received a grant from the National Institute for Occupational Safety and Health (NIOSH) to gather data and address work-related burn injuries.

Suicide Deaths

Suicide is the second leading cause of injury death in Utah, accounting for almost as many deaths as motor vehicle crashes. Utah's rate is 10th highest in the nation. It was the leading cause of death for Utah males aged 15-44, resulting in 208 deaths from 1996-1998. Although boys and men are more likely to complete suicide, the rate of suicide attempts requiring hospitalization is higher for girls and women.

HEALTHY PEOPLE 2010 OBJECTIVE 18-1 GOAL: SUICIDE (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (5). (SEE APPENDIX)



Sources: Utah Governor's Office of Planning and Budget; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health

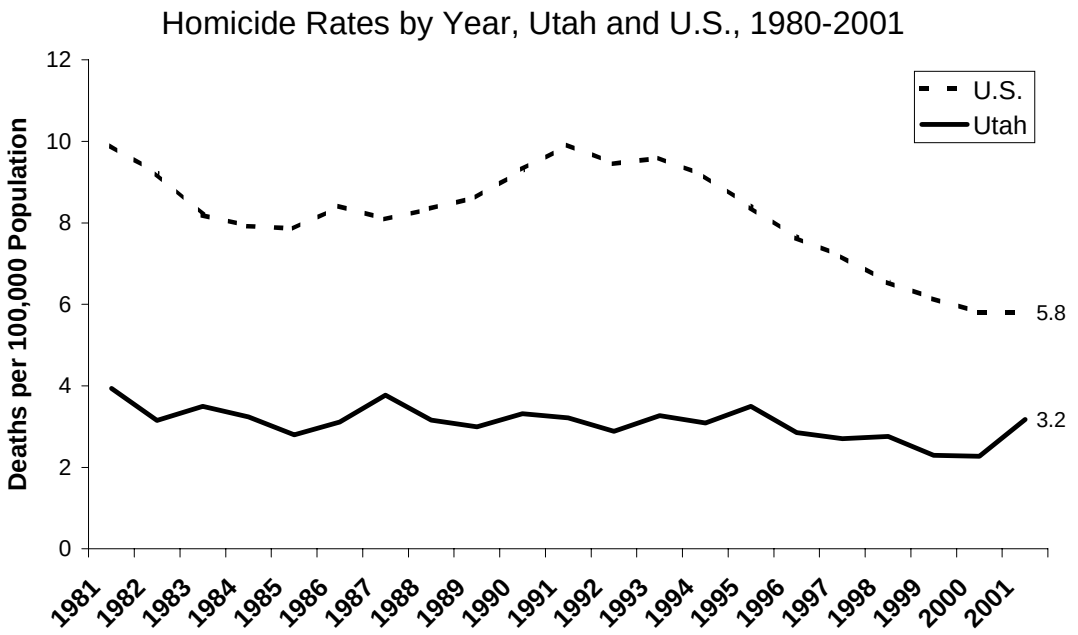
Note: Age-adjusted to U.S. 2000 population
ICD-9 codes E950-E959

- In 2001, there were 316 Utah deaths from suicide. Since 1980, suicide rates have decreased for Utah females (7.1 to 4.6 per 100,000), but rates have increased for males (18.7 to 22.9 per 100,000). In 2001, 316 people died from suicide in Utah. For nearly two decades, the Utah suicide death rate has been higher than the U.S. rate (14.5 versus 10.3 in 2000).
- In 1988-1997, suicide deaths were highest among White non-Hispanic (1,976) and Hispanic (128) boys and men.[21] Most (63%) youth suicide completers aged 13-21 had contact with the Juvenile Court.[22]
- The most common risk factors for suicide are: untreated mental health conditions (depression, anxiety), behavioral problems, low self-esteem, substance use and abuse, and contact with Juvenile Court.
- In 1999, with the cooperation of several agencies and partners, the Violence and Injury Prevention Program (VIPP) facilitated the formation of the Youth Suicide Task Force. Members include youth experts and advocates from many disciplines. Primary objectives of the Task Force are improvement in suicide prevention through the early identification, intervention, and referral of high-risk youth. The Task Force also strives to improve and increase levels of public awareness and professional training.

Homicide

There were, on average, 59 homicides among Utah residents over the past five years (1997-2001). Of these, approximately one third were among children ages 0 to 19 years. Homicide is the third leading cause of death among adolescents aged 11-19 years.[23] The reasons for these deaths vary. Some are due to gang violence or are drug related, others are related to domestic violence, and still others are related to unsupervised firearm handling.

Healthy People 2010 Objective 15-32 Goal: Homicides (age-adjusted per 100,000 standard population) (3). (See Appendix)



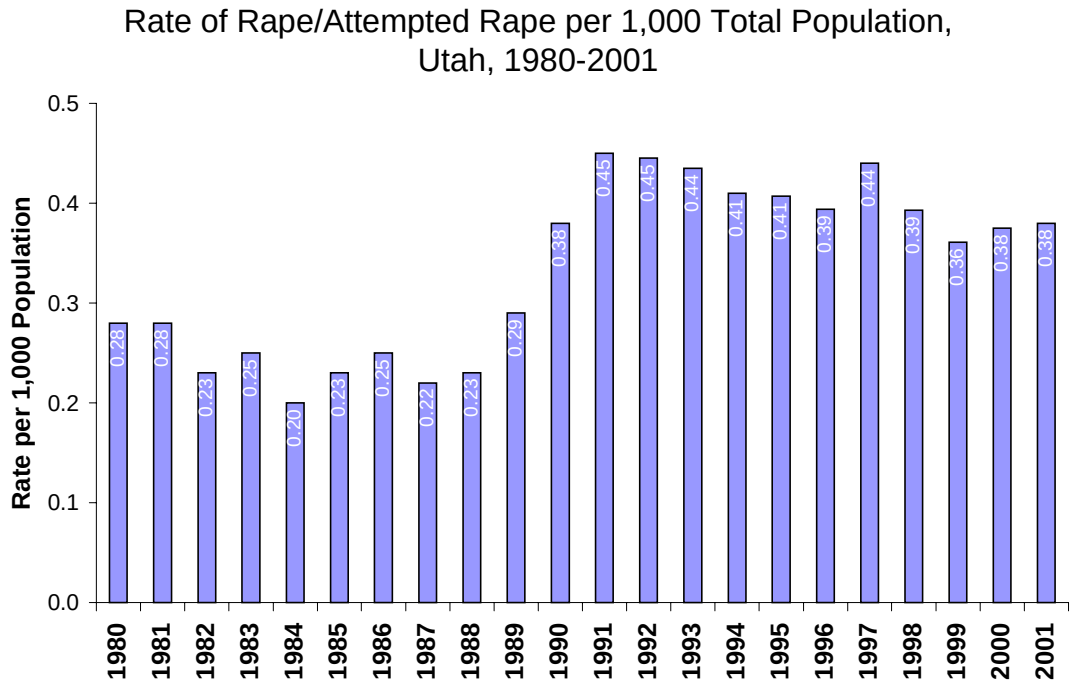
Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Note: Data are age-adjusted to the U.S. 2000 standard population. ICD-9 codes E960-E969, ICD-10 codes X85-Y09, Y87.1

- Overall, the U.S. has seen a steady decline in homicide deaths, while the Utah rate has remained fairly consistent.
- Most homicides are committed with firearms, occur during an argument, and occur among people who know each other. Homicide is twice as common among men as among women.
- National research suggests the following factors contribute to child homicide: beliefs supportive of violence, social cognitive deficits, poor monitoring and supervision of children, exposure to violence, parental drug/alcohol abuse, adolescent's drug/alcohol abuse, association with peers engaged in high-risk behavior, poverty and low economic opportunity, and high levels of family disruption.
- Preventing homicide requires a community effort, including measures such as reducing gang activity, teaching conflict resolution in schools and to adults, and assuring that firearms are stored and used appropriately. The UDOH Violence and Injury Prevention Program trains medical care providers to identify, refer, and treat domestic violence victims. The state has established several review committees to investigate the causes and risk factors of specific homicides and recommend prevention strategies.

Rape/Attempted Rape Incidence

Rape devastates families and changes lives forever. Rape is a violent act that impacts everyone- men, women, and children of all ages, races, religions, and income levels. Rape victims often suffer long-term emotional consequences of the rape incident.



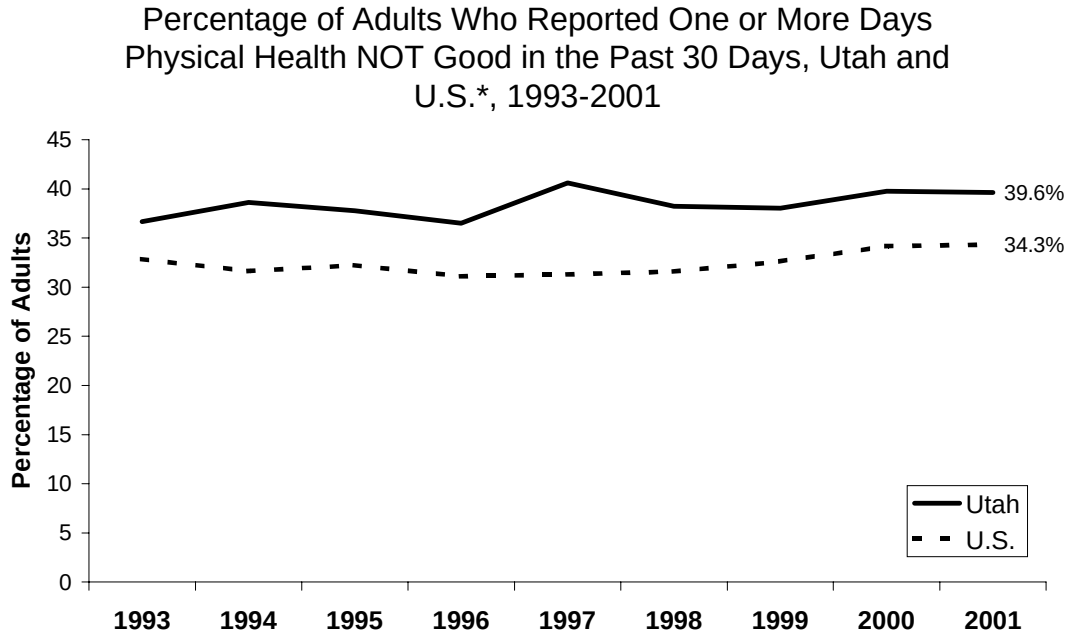
Source: Bureau of Criminal Identification, Utah Department of Public Safety

Note: Rape is defined as the carnal knowledge of a person forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent because of his/her temporary or permanent mental or physical incapacity (or because of his/her youth). The federal definition of rape excludes statutory rape.

- The figures displayed above reflect only those incidents that were reported to authorities. It is estimated that only 16% of rapes are reported to law enforcement.
- 2001 Rape/Attempted Rape Incidence
  Utah - 873 reported rapes/attempted rapes, 36.0 per 100,000
  U.S. - 90,491 reported rapes/attempted rapes, 31.8 per 100,000
- A statewide toll-free 24-hour rape and sexual assault crisis and information line is maintained by ten rape crisis centers, providing confidential crisis services, information, support, and referral to victims/survivors of rape and sexual assault.
- Hospital intervention teams are maintained and coordinated by ten rape crisis centers to provide services to all reporting sexual assault victims and their families within the medical/health care setting, and oversee the collection of evidence for prosecution.
- The ten Rape Crisis Centers in Utah provide public awareness presentations to increase sensitivity and understanding within communities regarding the causes and impact of sexual violence and prevention/risk skill building.

Health Status: Physical Health Last 30 Days

General physical health status is the culmination of all the things that affect a person's health. A person may have had poor health because of an injury, an acute infection such as a cold or flu, or a chronic health problem. This measure can be used to identify health disparities, track population trends, plan public health programs, and measure progress at the state level toward the two major goals of Healthy People 2010: Improving the Quality and Years of Healthy Life and Eliminating Health Disparities.



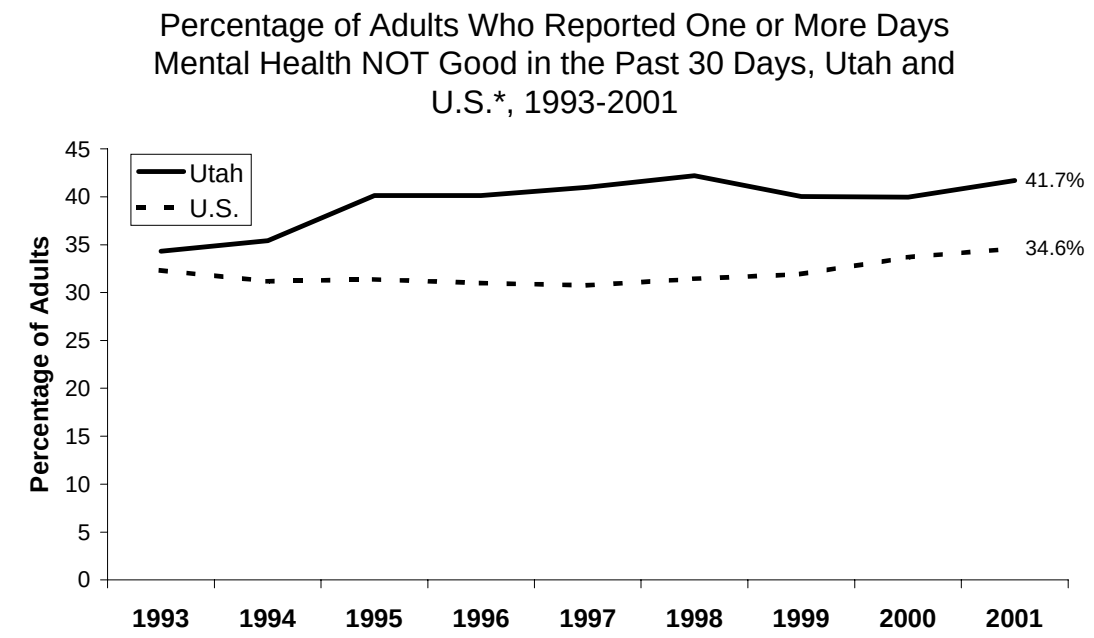
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

Note: Age-adjusted to U.S. 2000 standard population. *U.S. data are the average for all states and the District of Columbia but does not include the U.S. territories.

- In 2001, an estimated 39.6% of Utah adults reported one or more days their physical health was NOT good in the preceding 30 days. This percentage has increased slightly from 36.7% in 1993.
- For all years, a larger percentage of adults in Utah reported one or more days their physical health was NOT good in the preceding 30 days as compared to the U.S. This percentage for the U.S. also increased from 32.8% in 1993 to 34.4% in 2001.
- Health status is associated with age, education level, and household income. Older adults report more physical health problems than younger adults. College graduates and those with higher household incomes report the lowest number of unhealthy days.
- Until the last few years efforts to control chronic diseases have focused on preventing premature mortality. Reducing morbidity and improving disease self-management skills are now receiving considerably more attention from chronic disease prevention and control programs.

Health Status: Mental Health Last 30 Days

Mental health refers to an individual's ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioral incapacity. Mental health and mental disorders can be influenced by numerous conditions including biologic and genetic vulnerabilities, acute or chronic physical dysfunction, and environmental conditions and stresses.



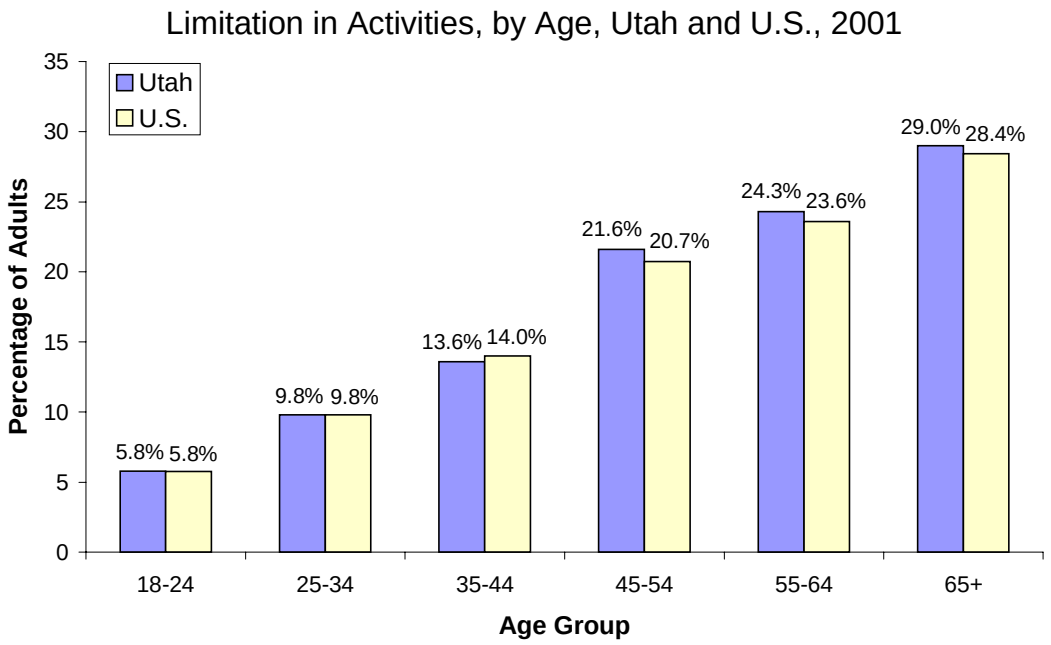
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

Note: Age-adjusted to U.S. 2000 standard population. *U.S. data are the average for all states and the District of Columbia but does not include the U.S. territories.

- In 2001, 41.6% of Utah adults reported one or more days when their mental health was NOT good in the past 30 days. This percentage increased from 34.3% in 1993.
- In Utah, the likelihood of reporting one or more days of poor mental health was related to age, sex, income, and education. The likelihood decreased with age, income, and education, and was higher for women than for men.
- Health insurance coverage for mental health problems is often inadequate for persons requiring long-term out-patient psychotherapy. Many psychotherapeutic drugs (such as antidepressants and anti-anxiety drugs) are prescribed by primary care physicians. Primary care visits are an opportunity to identify and treat some mental health problems.
- The Behavioral Risk Factor Surveillance System (BRFSS) survey is conducted with approximately 350 Utahns each month.

Limitation in Activities

Persons whose activities are limited due to physical, mental, or emotional problems may need more specialized health care than persons without such limitation. Their medical costs are generally higher and they are more likely to miss days from school or work.



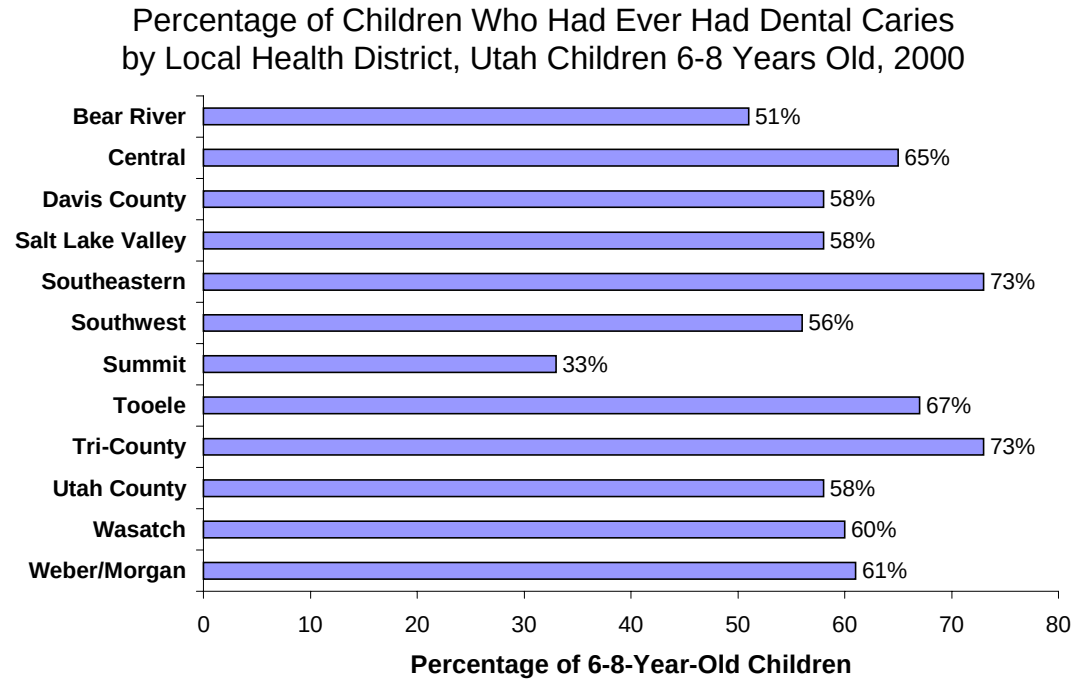
Sources: U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS); Utah Data: Behavioral Risk Factors Surveillance System, Office of Public Health Assessment, Utah Department of Health

- In 2001, 16.3% of all Utahns were estimated to have some type of limitation in their activities due to a physical, mental, or emotional problem. This percentage increased with increasing age from 5.8% for the youngest adults to 29% for those adults 65 years and older.
- Limitation of activity is more prevalent in older age. The percentage of adults who reported activity limitation was virtually the same for Utah and the U.S. in each age group.
- Lack of insurance can be a barrier to health care, resulting in complications due to chronic disease, thus increasing the chance for limitation in activities.
- Personal behaviors that affect overall health status can contribute to the kinds of chronic conditions that lead to limitations in activities.
- Limitation in activity is directly related to a person's overall health status, including physical, mental, and emotional health.

Dental Caries Experience: Children Age 6-8

Dental caries (tooth decay) is one of the most common health problems in the United States and the most common chronic childhood disease. It is five times as common as asthma in children. It is also one of the most preventable diseases. Oral health affects a person's overall general health.

Healthy People 2010 Objective 21-1b Goal: Dental caries experience - Primary or permanent teeth - Children (ages 6 to 8 years) (42%). (See Appendix)



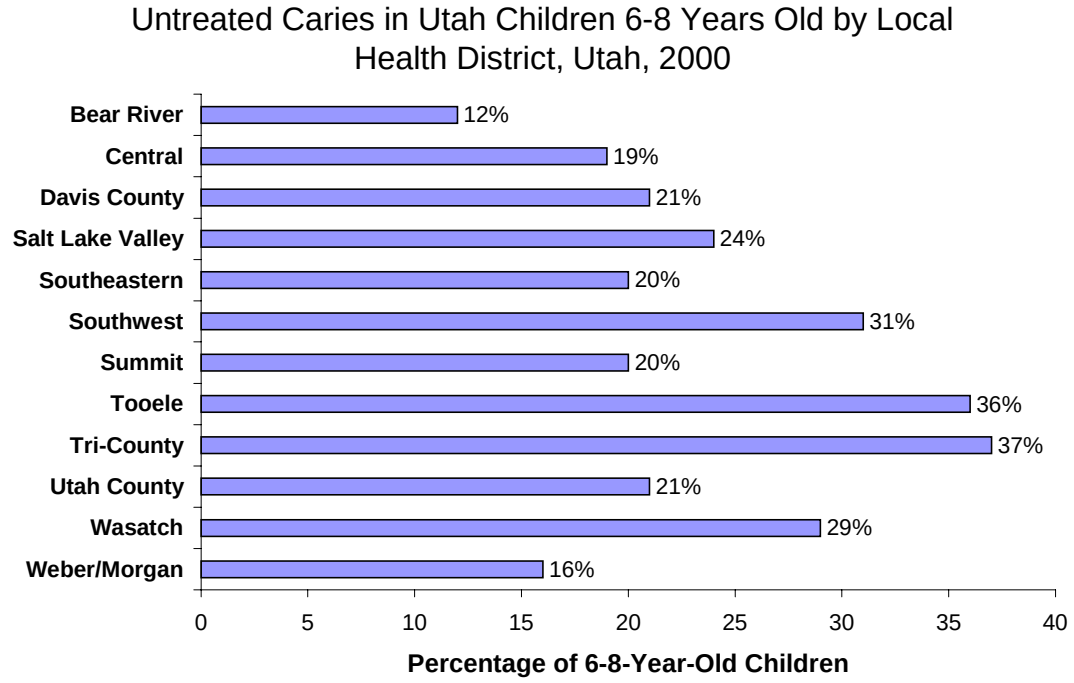
Source: Utah Oral Health Survey, 2000, Utah Department of Health
Note: The Utah 2000 rate was 58%.

- Utah continues to lag behind the U.S. in the percentage of caries-free children. In 1994, 48% of 6-8-year-olds in the U.S. were caries-free. Utah children have more cavities in part because of the lack of fluoridation in Utah's drinking water. Community water fluoridation will be implemented in Salt Lake and Davis Counties by the end of 2003.
- In a recent survey of parents of first through third grade children, one in five did not have insurance that pays for dental care. One in ten children required dental care during the past year but were unable to obtain needed dental treatment.
- Currently, only 3% of Utahns are drinking fluoridated water. Other risk factors include eating habits, such as frequent snacking and soft drink consumption, not brushing/flossing regularly, and not visiting the dentist regularly. Dental disease affects children from poor families five times as much as children from higher income families. Minority ethnic populations have a higher incidence of caries experience and untreated caries and a lower rate of sealant placement.
- Oral disease has been linked to several other chronic diseases, including cardiovascular disease and diabetes. Periodontal disease in pregnant women has also been linked to preterm, low birth weight babies.

Dental Disease: Untreated Decay in Children Age 6-8

Dental caries (tooth decay) is one of the most common health problems in the United States. Among school-aged children, 45% have caries in their permanent teeth. Among adults, 94% show evidence of past or current dental caries. Untreated dental caries is an important indicator of adequate and timely access to dental care.

HEALTHY PEOPLE 2010 OBJECTIVE 21-2B GOAL: UNTREATED DENTAL DECAY - PRIMARY OR PERMANENT TEETH - CHILDREN (AGES 6 TO 8 YEARS) (21%). (SEE APPENDIX)



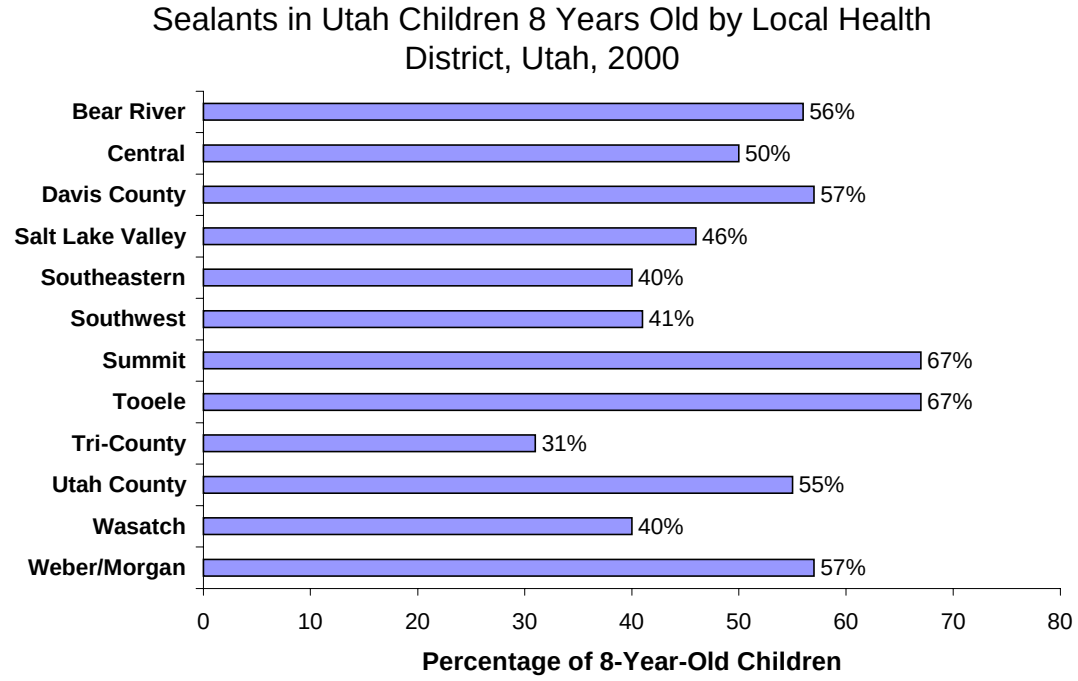
Source: Utah Oral Health Survey, 2000, Utah Department of Health
Note: The Utah rate was 22%.

- Of the first through third grade students screened in 2000, 22% had obvious untreated decay and 2% of the children had urgent dental needs. Those findings are comparable to those found in other states.
- Individuals without dental insurance coverage have more untreated decay and were twice as likely to report that they could not access needed dental treatment during the past year.
- Oral disease has been linked to several other chronic diseases, including cardiovascular disease and diabetes. Periodontal disease in pregnant women has also been linked to preterm, low birth weight babies.
- Some Utah Department of Health activities addressing access to dental care include:
  - Medicaid provides over 100,000 children age 1 through 18 years with dental benefits.
  - Children's Health Insurance Program (CHIP) will make 30,000 children eligible for basic dental services (screening, sealants, and emergency care).
  - The Utah Oral Health Initiative facilitates the formation of local oral health coalitions to improve access to dental care.
  - The Caring Foundation for Children is providing dental benefits for children who do not qualify for CHIP because they have other medical only health coverage.

Dental Sealants: Children Age 8

Eighty percent of a child's dental decay is found on the occlusal or biting surface of the tooth. Occlusal sealants form a barrier to protect this part of the tooth. The occlusal surface of teeth with deep pits and fissures are difficult to clean and therefore this part of the tooth is more susceptible to decay.

HEALTHY PEOPLE 2010 OBJECTIVE 21-8A GOAL: DENTAL SEALANTS - CHILDREN (AGE 8 YEARS) (50%). (SEE APPENDIX)



Source: Utah Oral Health Survey, 2000, Utah Department of Health

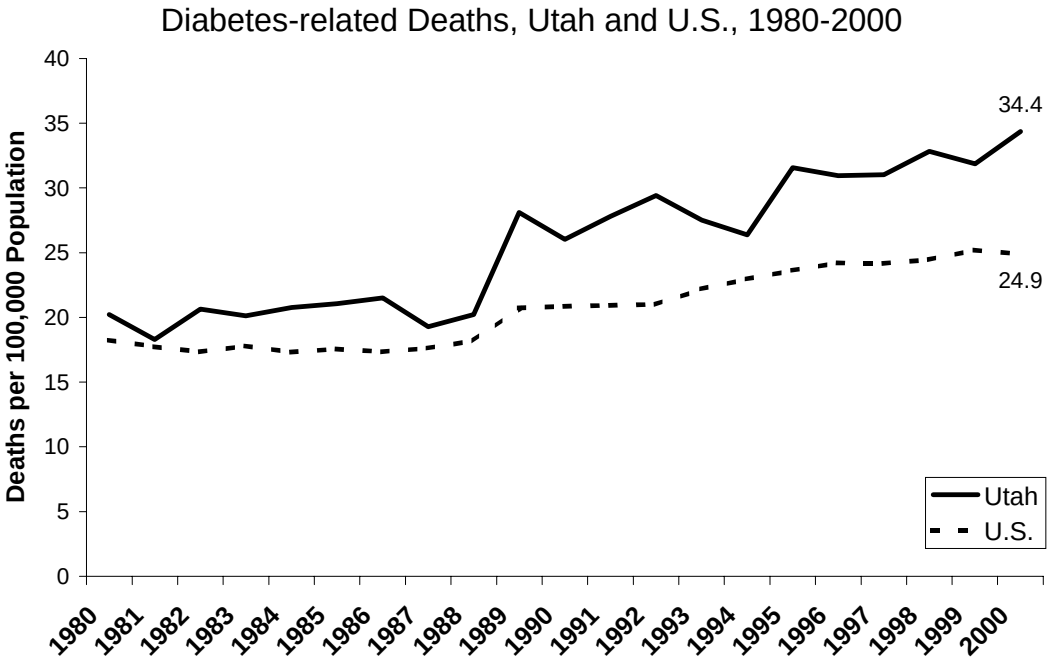
Note: The Utah rate was 22%.

- Sealants have proven to be an effective decay preventive measure for children when placed on the biting surfaces of the back teeth. The most recent survey indicates that 50% of eight-year-old children have at least one sealant on their first permanent molar.
- With half of the eight-year-old children having a sealant, Utah ranks considerably higher than the U.S. average. The latest U.S. results (1991) showed less than 20% with sealants.
- Dental disease affects children from poor families five times as much as children from higher income families. Minority ethnic populations have a higher incidence of caries experience and untreated caries and a lower rate of sealant placement.
- Private dental insurance often covers sealant placement with some exclusions. Medicaid and CHIP include sealant coverage for low-income children; however, access remains a barrier to treatment. Individuals without dental insurance coverage are less likely to have sealants.
- Dental insurance coverage for sealants influences their use. CHIP and Medicaid cover sealants to promote dental health in those at-risk populations. Local health departments and institutions with dental hygiene education programs conduct sealant placement projects for low-income children.

Diabetes-related Deaths

Diabetes is the sixth leading cause of death in the U.S. and in Utah. Many diabetes-related deaths involved complications such as ketoacidosis, cardiovascular disease, and kidney failure. Many people with diabetes may suffer from these complications for years prior to death. Not only do these individuals face a very poor quality of life, the costs involved in treating the complication can result in a substantial burden to the health care system.

HEALTHY PEOPLE 2010 OBJECTIVE 5-5 GOAL: DIABETES-RELATED DEATHS (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (45). (SEE APPENDIX)



Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER

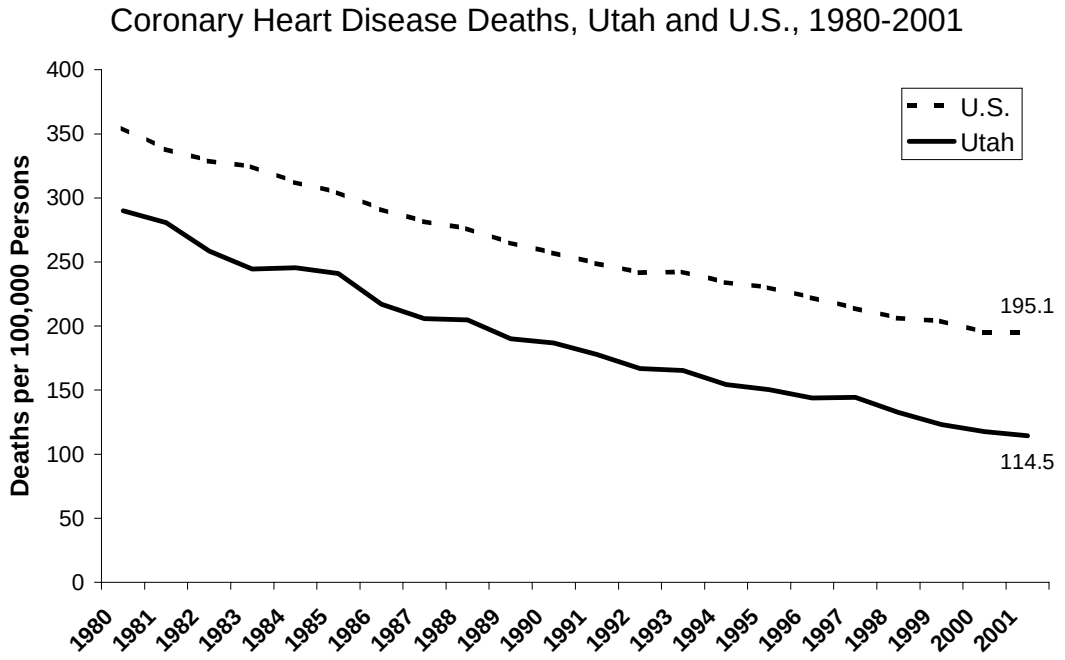
Note: Age-adjusted to U.S. 2000 population; ICD-9 code 250; ICD-10 code E10-E14. Estimates from 1998 and before have been comparability modified to be consistent with the ICD-10 coding system.; U.S. 2000 estimate is preliminary.

- Proper management of diabetes requires regular routine check-ups, regular screening for signs of complications, consistent self-monitoring of blood sugar, regular exercise, and eating nutritious meals. There have been substantial improvements in technologies for self-management of diabetes in recent years, the most notable of which is the insulin pump.
- Rates for diabetes-related deaths in Utah are consistently higher than those for the U.S.
- The UDOH Diabetes Control Program is working with the University of Utah School of Medicine, community health centers, and health plans to improve the care provided to Utahns with diabetes. Diabetes educators also play a prominent role in helping Utahns with diabetes avoid life-threatening complications through proper management of their condition. The Program regularly conducts a statewide media campaign to increase awareness about the seriousness of diabetes, encouraging those with diabetes to have regular check-ups and clinical exams.

Coronary Heart Disease Deaths

Coronary heart disease (CHD), resulting from blockage of the arteries that provide blood to heart muscles, is the leading cause of death in Utah. Prevention of CHD is key to reducing mortality from this condition.[24]

HEALTHY PEOPLE 2010 OBJECTIVE 12-1 GOAL: CORONARY HEART DISEASE (CHD) DEATHS (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (166). (SEE APPENDIX)



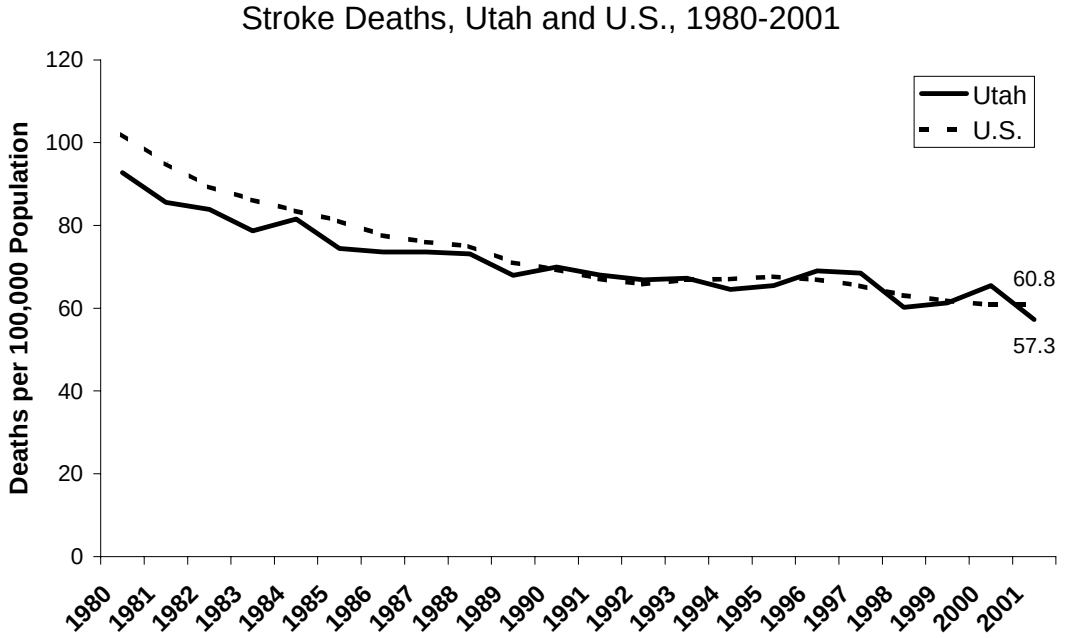
Sources: U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget
Note: Age-adjusted to U.S. 2000 population, ICD-9 codes 410-414, 402, 429.2; ICD-10 codes I11, I20-25. Estimates from 1998 and before have been comparability modified to be consistent with ICD-10 coding system definitions. U.S. 2000 estimate is from NCHS preliminary data.; Data are age-adjusted to U.S. 2000 standard population.
ICD-9 codes 402, 410-414, 429.2, ICD-10 codes I20-I25, I11

- Deaths due to CHD have declined over the past ten years in both Utah and the U.S. Utah's 2001 age-adjusted CHD death rate of 114.5/100,000 was lower than the U.S. rate.
- Health care system factors relate primarily to access to provider care and patient/provider knowledge of signs and symptoms of coronary heart disease and cardiac incidents.
- Individuals who smoke cigarettes, have high blood pressure, elevated cholesterol, diabetes, poor nutrition, a family history of heart disease, or who are overweight, obese, or physically inactive are at greater risk of developing coronary heart disease.
- Coronary heart disease is a chronic condition in which atherosclerosis develops in the coronary arteries that supply blood to heart muscles. There were a total of 7,574 discharges from Utah hospitals with a first-listed diagnosis of coronary heart disease in 2001, at a total cost of $166 million.

Stroke (Cerebrovascular Disease) Deaths

Stroke, the death of brain tissue usually resulting from artery blockage, is the third leading cause of death in Utah, behind heart disease and cancer. About 600,000 people in the U.S. suffer a new or recurrent stroke each year.[25] Stroke is a leading cause of long-term disability.[25]

HEALTHY PEOPLE 2010 OBJECTIVE 12-7 GOAL: STROKE DEATHS (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (48). (SEE APPENDIX)



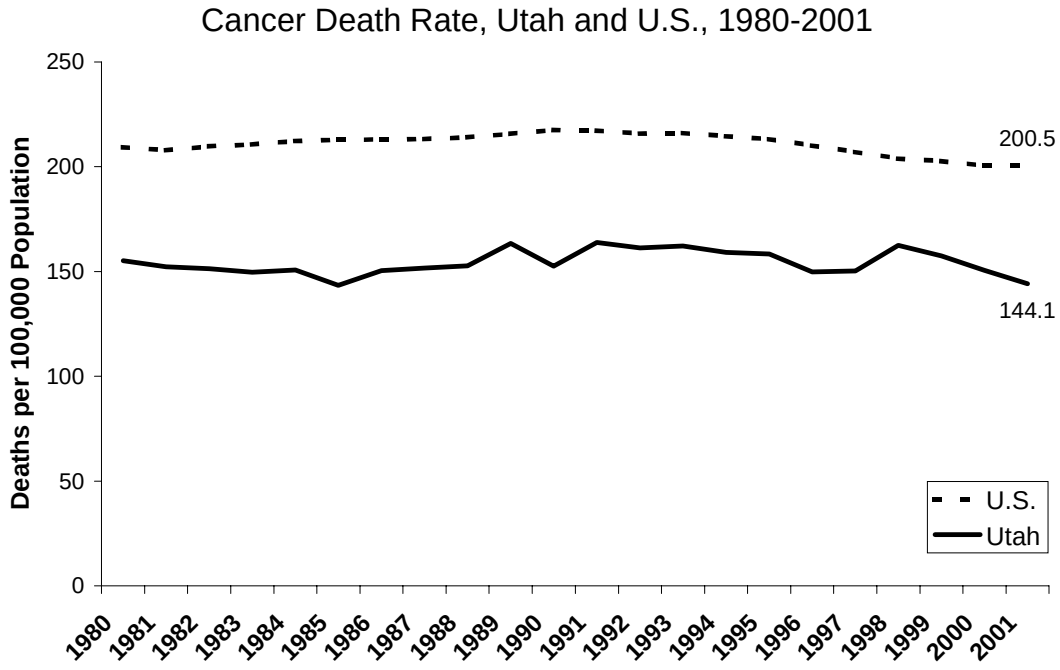
Sources: U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; National Vital Statistics System, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention
Note: Age-adjusted to U.S. 2000 standard population.

- Death rates for stroke have declined in recent decades. Much of this decline can be attributed to control of high blood pressure. Death rates for stroke have not been declining in the United States and Utah as rapidly as heart disease deaths. Utah's death rate from stroke in 2001 was 57.3 per 100,000, similar to the U.S. rate of 60.8 per 100,000.
- Stroke is more common in older compared to younger persons. In fact, for people over age 55, the risk of stroke more than doubles in each successive decade.[25] The incidence of stroke also varies by race and ethnicity. For example, Black persons have a 38% greater risk of first strokes than do White persons.[25]
- Risk factors for stroke include high blood pressure (the most important risk factor), increasing age, family history of stroke, personal history of stroke, cigarette smoking, diabetes, heart disease, carotid artery disease, transient ischemic attacks, and a high red blood cell count.[26] Elevated cholesterol level, obesity, and lack of physical activity, all risk factors for heart disease, also increase the risk of stroke. Many of these risk factors can be modified successfully by adopting lifestyle changes.
- Stroke is a major cause of long-term disability in the U.S.; 15% to 30% of stroke survivors are permanently disabled. In addition, 22% of men and 25% of women who have an initial stroke die within one year.[25]

Cancer Deaths

Cancer is the second leading cause of death in the U.S. and in Utah. The financial costs of cancer are substantial, with an overall annual cost estimated at $107 billion.[3] Treatment for lung, prostate, and breast cancers accounts for more than half of the direct medical costs.[3]

HEALTHY PEOPLE 2010 OBJECTIVE 3-1 GOAL: OVERALL CANCER DEATHS (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (ICD-9: 140-208) (159.9). (SEE APPENDIX)



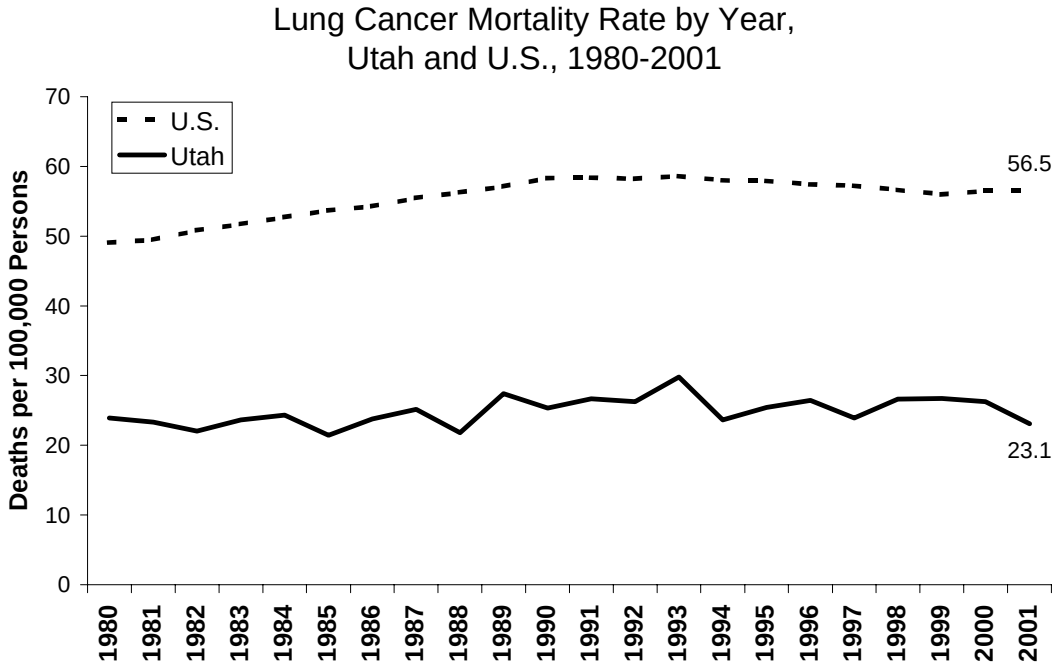
Sources: U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Utah Governor's Office of Planning and Budget
Note: ICD-9 codes 140-208, ICD-10 codes C00-C97; Age-adjusted to U.S. 2000 population.

- During the time period 1995-1999 (the most recent national data available from the National Cancer Institute), Utah had the lowest overall cancer mortality rate in the nation: 153.1 per 100,000 compared to 206.0 per 100,000 respectively (rates are age-adjusted to the 2000 U.S. standard population).[27]
- Increasing age is a risk factor for developing cancer. About 80% of all cancers are diagnosed in persons aged 55 years or older.[16] Other risk factors for cancer include a person's gender and family medical history. Cancer may also be linked to environmental exposures and lifestyle choices such as use of tobacco and alcohol, diet, and sun exposure. In fact, tobacco is associated with 87% of all cases of cancer of the lung, trachea, and bronchus, and lung cancer was responsible for 28% of all cancer deaths in 2001.[28,16]
- The Utah Comprehensive Cancer Control Initiative (UCCCI) is a statewide partnership whose goal is to reduce the burden of cancer. The mission of the UCCCI is to lower cancer incidence and mortality in Utah through collaborative efforts directed toward cancer prevention and control. As a result of this planning process, objectives and strategies have been developed by community partners regarding the early detection of cervical, testicular, prostate, skin, breast, and colorectal cancers as well as the promotion of physical activity, healthy eating habits, and smoking cessation.

Lung Cancer Deaths

Lung cancer is the leading cause of cancer-related death in Utah and the U.S. In fact, lung cancer was responsible for 28% of all cancer deaths in the U.S. in 2001, an estimated 157,400 deaths.[16] Because symptoms often do not appear until the disease is advanced, early detection of this cancer is difficult. Tobacco is associated with 87% of all cases of cancer of the lung, trachea, and bronchus.[28]

HEALTHY PEOPLE 2010 OBJECTIVE 3-2 GOAL: LUNG CANCER DEATHS (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (ICD-9: 162.2 - 162.9) (44.9). (SEE APPENDIX)



Source: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER

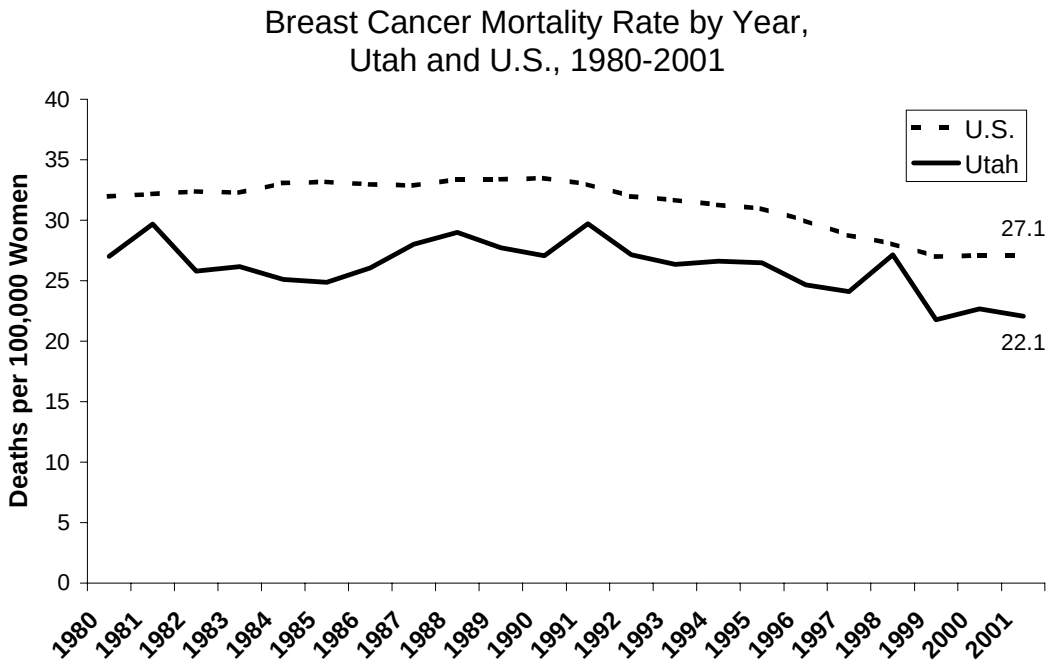
Note: Codes used to define lung cancer: ICD-9 162.2 - 162.9, ICD-10 C34. ICD-10 definition also includes cancer of the trachea. However, there were no deaths in Utah from cancer of the trachea from 1995 to 1999, suggesting that this change has resulted in little or no artifactual difference in comparing death rates from the two time periods.; U.S. data for 2000 are from NCHS preliminary death data; Age-adjusted to U.S. 2000 standard population.

- Utah's death rate from lung cancer has changed little over the past 15 years and was 23.9 per 100,000 population in 1980 and 23.1 per 100,000 population in 2001 (rates are age-adjusted to the 2000 U.S. standard population).
- During 1995-1999 (the most recent national data available from the National Cancer Institute), Utah had the lowest average annual lung cancer mortality rate in the nation: 25.7 per 100,000 compared to 57.7 per 100,000 population respectively (rates are age-adjusted to the 2000 U.S. standard population).
- The risk of developing lung cancer increases with age. Cigarette smoking is the most important risk factor for lung cancer. Other risk factors include occupational exposures such as radon and asbestos and indoor and outdoor pollution, including environmental tobacco smoke.
- Utah's public health efforts to reduce the adverse health effects of tobacco use have focused on promoting smoking cessation, limiting exposure to environmental tobacco smoke, and reducing youth access to tobacco products.

Breast Cancer Deaths

Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and a leading cause of female cancer deaths in both Utah and the U.S. Nationally, deaths from lung cancer surpass deaths from breast cancer; however, breast cancer is the leading cause of cancer death among Utah women. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage.

HEALTHY PEOPLE 2010 OBJECTIVE 3-3 GOAL: FEMALE BREAST CANCER DEATHS (AGE-ADJUSTED PER 100,000 STANDARD POPULATION) (ICD-9: 174) (22.3). (SEE APPENDIX)



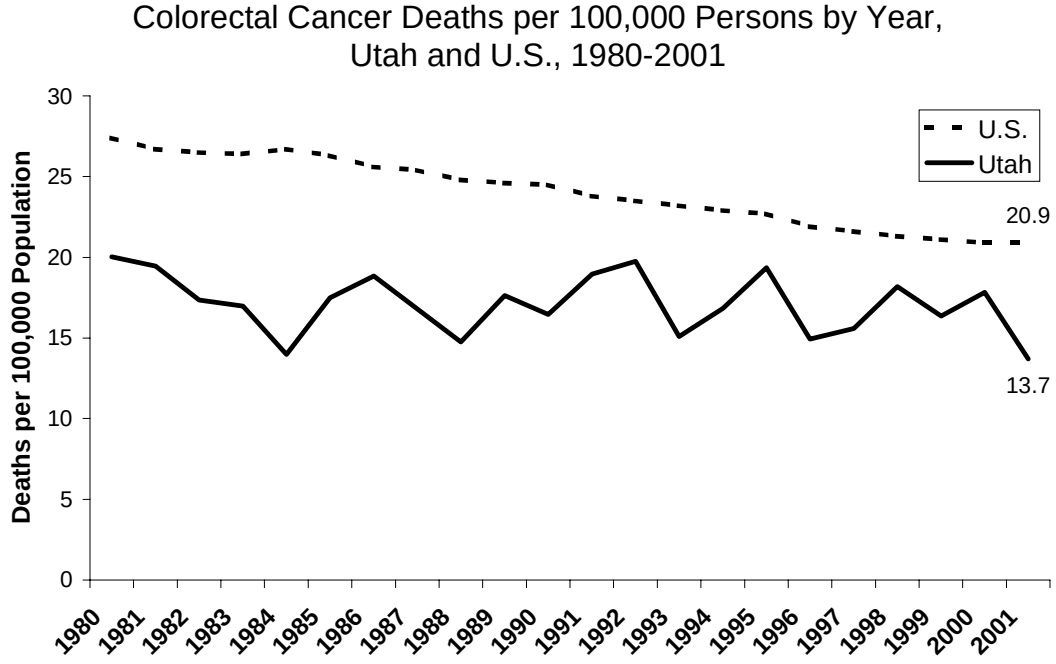
Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER
Note: Age-adjusted to U.S. 2000 standard population.; Codes used to define female breast cancer, ICD-9 174, ICD-10 C50.

- During 1995-1999 (the most recent national data available from the National Cancer Institute), Utah had the second lowest female breast cancer mortality rate in the nation: 24.5 per 100,000 females compared to 28.8 per 100,000 females respectively (rates are age-adjusted to the 2000 U.S. standard population).
- Mammography is currently the best method for detecting cancer early. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years[7-12], and by about 17% in women aged 40 to 49 years.[13-14]
- Survey data indicate that women without health insurance are less likely to receive mammography screening. The Utah Cancer Control Program (UCCP) provides free to low cost clinical breast exams and mammograms to women who meet age and income guidelines, education about the need for early detection and the availability of screening services, and outreach to eligible women.

Colorectal Cancer Deaths

Colorectal cancer is the second leading cause of cancer-related deaths in the U.S. and Utah. When national cancer-related deaths are estimated separately for males and females, colorectal cancer is the third leading cause of cancer death behind lung and breast cancer for females and behind lung and prostate cancer for males. Deaths from colorectal cancer can be substantially reduced when precancerous polyps are detected early and removed. When colorectal cancer is diagnosed early, 90% of patients survive at least five years.

Healthy People 2010 Objective 3-5 Goal: Colorectal cancer deaths (age-adjusted per 100,000 standard population) (ICD-9: 153.0-154.1, 159.0) (13.9). (See Appendix)



Sources: Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER

Note: ICD-9 codes: 153.0-154.1, 159.0; ICD-10 codes: C18-C20, C26; Age-adjusted to U.S. 2000 standard population.

- During 1995 through 1999 (the most recent national data available from the National Cancer Institute), Utah had the second lowest colorectal cancer mortality rate in the nation: 16.7 per 100,000 compared to 21.7 per 100,000, respectively (rates are age-adjusted to the 2000 U.S. standard population).[27]
- Risk factors for colorectal cancer include increasing age, inflammatory bowel disease, a family history of polyps or colorectal cancer, a personal history of polyps or colorectal cancer, and certain hereditary syndromes. Physical inactivity, a low fiber/high fat diet, obesity, excessive alcohol consumption, and tobacco use may all increase risk. A diet high in fruits and vegetables, hormone replacement therapy in post-menopausal women, and aspirin use may reduce colorectal cancer risk.
- Routine screening for colorectal cancer should begin at age 50 for adults of average risk. The 2000 Utah legislature approved a resolution encouraging private health insurance companies and employers to include insurance coverage for the screening and detection of breast, colorectal, and prostate cancers.

Appendix

Healthy People 2010:

National Health Promotion and Disease Prevention Objectives

The U.S. Public Health Service, in an effort to address the need to cut health-care costs, to prevent the premature onset of disease and disability, and to help all Americans achieve healthier more productive lives, established a series of national health objectives. Health objectives were recently revised to reflect goals for the year 2010. A complete list of the objectives may be found in *Healthy People 2010* and on the Internet at http://www.health.gov/healthypeople.[3] The Public Health Service recommends that public health entities regularly and systematically track population health objectives.

Some of the Healthy People 2010 (HP2010) goals, primarily goals for death rates, are stated in terms of an age-standardized value. Age-adjusted rates control for age effects, allowing better comparability of rates across areas and time. When comparing across geographic areas, such as comparing a state to the entire United States, or one state to another, age-standardizing, or age-adjusting controls for area-to-area differences in health events that can be explained by differing ages of the area populations. For example, a state with an older population will have higher death rates for cancer, even though its exposure levels and cancer rates for specific age groups are the same as those of other states. Utah has a young population, causing our crude death rates for age-related conditions to be lower than the U.S. rates. By using age-standardized rates, Utah and U.S. rates may be meaningfully compared. Age-adjusting is also used to compare death rates across time, as the age-distributions of populations vary over different time periods. For more information on age-adjustment of health data, see Lilienfeld and Stolley (1994).[28]

In many cases, a related HP2010 Objective existed for a measure, but was not identical in definition to the measure we reported. In these cases, no reference was made to the HP2010 Objective. The UDOH continues to work toward alignment of our reported measures with various reporting standards when it's appropriate and will do so for HP2010 Objectives over time.

References

1. Institute of Medicine. (1988). The Future of Public Health. Washington, D.C.: National Academy of Sciences, National Academy Press.

2. U.S. Department of Health and Human Services. (1991). Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Washington, D.C.: U.S. Public Health Service.

3. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.

4. October, 2002 "Room to Grow" website: http://www.roomtogrow.org/poverty.html

5. Utah Health Data Committee. Review of Utah Medicaid Nursing Home Bed Moratorium: 1989-2001. Salt Lake City, Utah: Utah Department of Health, 2002.

6. Harrington, C., Swan, J.H., Wellin, V., Clemena, W., and Carrillo, H.M. 1998 State Data Book on Long-term Care Program and Market Characteristics. San Francisco, CA: University of California, 2000. As cited in Utah Health Data Committee. Review of Utah Medicaid Nursing Home Bed Moratorium: 1989-2001. Salt Lake City, Utah: Utah Department of Health, 2002.

7. Tabar L, Fagerberg G, Duffy SW, et al. Update of the Swedish two-county program of mammographic screening for breast cancer. Radiol Clin North Am 1992;30:187-210.

8. Roberts MM, Alexander FE, Anderson TJ, et al. Edinburgh trial of screening for breast cancer: mortality at seven years. Lancet 1990;335:241-246.

9. Shapiro S, Venet W, Strax P, et al, eds. Periodic screening for breast cancer. Baltimore: Johns Hopkins University Press, 1988.

10. Andersson I, Aspegren K, Janzon L, et al. Mammographic screening and mortality from breast cancer: the Malmo mammographic screening trial. BMJ 988;297:943-948.

11. Frisell J, Eklund G, Hellstrom L, et al. Randomized study of mammography screening-preliminary report on mortality in the Stockholm trial. Breast Cancer Res Treat 1991;18:49-56.

12. Nystrom L, Rutqvist LE, Wall S, et al. Breast cancer screening with mammography: overview of Swedish randomized trials. Lancet 1993;341:973-978.

13. National Institutes of Health Consensus Development Panel: National Institutes of Health Consensus Development Conference Statement: breast cancer screening for women ages 40-49, January 21-23, 1007, Journal of the National Cancer Institute 89 (14):1015-1026, 1997.

14. National Cancer Advisory Board: National Cancer Advisory Board mammography recommendations for women ages 40-49, Bethesda, Maryland, National Cancer Advisory Board, 1997.

15. Office of Public Health Assessment. Utah's Behavioral Risk Factor Surveillance System TREND REPORT 1989-1999. Salt Lake City, UT: Utah Department of Health, 2001.

16. American Cancer Society. Cancer Facts & Figures 2001. Atlanta, GA: author.

17. Centers for Disease Control and Prevention. (1999). Achievements in Public Health, 1900-1999: Impact of vaccines universally recommended for children -- United States 1990-1998. Morbidity and Mortality Weekly Report, Vol. 48, (12); 243-248. Atlanta, GA: author.

18. Mokdad, A.H., Serdula, M.K., Dietz, W.H. et al. (1999). The spread of the obesity epidemic in the United States, 1991-1998. Journal of the American Medical Association (JAMA), 282 (16), 1519-1522.

19. National Cancer Institute. (1991). 5 A Day for Better Health Program. 5 A Day Baseline Study of America's Fruit and Vegetable Consumption. Rockville, MD.

20. U.S. Department of Health and Human Services. HHS Blueprint for Action on Breastfeeding, Washington, D.C. U.S. Department of Health and Human Services, Office on Women's Health, 2000.

21. Bureau of Surveillance and Analysis. (1999). Suicide in Utah. Salt Lake City, UT: Utah Department of Health.

22. Gray, D., Keller, T., Haggard, L., Rolfs, R. Achilles, J., Tate, D., Cazier, C., and McMahon, W. Utah Youth Suicide Study: Preliminary Results. Utah's Health: An Annual Review, Vol 5 (11-17). Governor Scott M. Matheson Center for Health Care Studies, University of Utah: Salt Lake City, 1998.

23. Web-based Injury Statistics Query and Reporting System (WISQARS) (http://www.cdc.gov/ncipc/wisqars/). National Center for Injury Prevention and Control Centers for Disease Control and Prevention, 2002.

24. Centers for Disease Control and Prevention. (2001). Mortality from coronary heart disease and acute myocardial infarction-United States, 1998. Morbidity and Mortality Weekly Report, 50, 90-93. Atlanta, GA: author.

25. American Heart Association. 2002 Heart and Stroke Statistical Update. Dallas, TX: American Heart Association; 2001.

26. American Heart Association. What are the risk factors of stroke? Accessed at http://www.strokeassociation.org.

27. Surveillance, Epidemiology and End Results (SEER) Cancer Statistics Review, 1973-1999.

28. Department of Health and Human Services. Reducing the health consequences of smoking: 25 years of progress. A report of the Surgeon General. Rockville, MD: DHHS, 1989. (Publication no. DHHS (PHS) 89-8411.)

29. Lilienfeld, D. E., & Stolley, P. D. (1994). Foundations of Epidemiology (3rd ed.). New York: Oxford University Press.

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